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Church Universal and Triumphant

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Final Supplement Environmental Impact Statement

Church Universal
and
Triumphant

Park County

NOV 30 1993

November 1993

In accordance with the Montana Environmental Policy Act, Section 75-1-101, et. seq., MCA and ARM 16.2.101, and the Montana laws regarding Public Water Supplies, Section 75-6-101, et seq., MCA and ARM 16.20.401, Food Establishments, Section 50-50-102, et. seq., MCA and ARM 16.10.3, Trailer Courts and Tourist Campgrounds, Section 50-52-101, et. seq., MCA and ARM 16.10.7, Work Camps, Section 50-52-102, et. seq., MCA and ARM 16.10.9, and Underground Storage Tanks, Section 75-11-201, et. seq., MCA, the following supplement environmental impact statement was prepared by the Department of Health and Environmental Sciences with assistance from GeoResearch, Inc., Billings, MT, concerning a request for the approval of plans submitted to the DHES by the Church Universal and Triumphant, Corwin Springs, MT, in Park County.

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CHAPTER 1

DESCRIPTION OF THE PROPOSED ACTIONS

1.0 CHAPTER 1 - DESCRIPTION OF THE PROPOSED ACTIONS

1.1 Introduction

The Department of Health and Environmental Sciences (DHES) is preparing this Final Supplement Environmental Impact Statement (FSEIS) for the Church Universal and Triumphant's (the Church) proposed developments in Park County, Montana.

The proposed developments (depicted in **Map 1-1 through Map 1-13**) include:

1. An increase in the permitted use of the septic system at the East Gate Work Camp,
2. The development of the proposed Spring Creek Headquarters Site,
3. The reinstallation of underground fuel storage tanks at the Mol Heron Shelter Complex,
4. The expansion of the Golden Age Village mobile home park, and
5. The determination of whether the water and wastewater systems associated with a proposed community kitchen in an existing building in the Royal Teton Ranch - North (RTR-N) are public or private.

This FSEIS incorporates all the material in the Draft EIS (DEIS - February 5, 1988), the Final EIS (FEIS - March 15, 1989), appropriate information associated with subsequent legal actions in the First Judicial District, Lewis and Clark County, Helena, and Sixth Judicial District, Park County, Livingston, and the material in the Draft Supplement EIS (DSEIS - November 19, 1992). The FSEIS should be considered in conjunction with the previously referenced material.

1.2 Summary Description of Church Properties and Activities

1.2.1 Church Activities

The Church describes its main activities as: (1) Holding religious services, lectures, seminars and conferences, (2) publishing and distributing religious writings, art and audio and video productions, (3) servicing an international membership and affiliate Churches, (4) conducting a 12-week religious course of study for members, known as "Summit University," and (5) operating a private school (Kindergarten-12) for the children of staff and members.

Royal Teton, Ltd., was a wholly owned subsidiary of the Church. It was established in September 1981 and by 1986 included a total ownership in Park County of about 33,000 acres. At the end of 1986, Royal Teton, Ltd., was dissolved and the Church became the owner of all the properties. (Reference 1.5.1.6 **IRS Audit** for the reactivation of Royal Teton, Ltd.)

Ranching on the entire Royal Teton Ranch (RTR-N and RTR-S) includes: (1)

cattle and sheep ranching (currently a total of about 250 cows and 500 sheep, plus the annual leasing of pasture for approximately 375 cattle [reference **1.5.16 Changes in Cattle and Sheep Ranching**], (2) farming of about 3,000 irrigated acres with traditional crops of alfalfa, grass, barley, oats and wheat, (3) a produce farm of about 80 acres and two greenhouses, (4) poultry farming (currently a total of about 12,000 chickens and 2,500 turkeys) and egg production (currently an 800-hen laying flock), (5) processing facilities for farm produce for private on-farm use, (6) a restaurant known as The Ranch Kitchen, with appurtenant campground known as the Cinnabar Campground, both open to the public, and two nearby mobile home park campgrounds operated primarily for private staff housing, known as East Gate (formerly Camp Mustang) and the Cinnabar Trailer Court, all located along U.S. Highway 89 at Corwin Springs, (7) a leased campground and mobile home park located 13 miles south of Livingston on Highway 89, known as the Big Spur Campground (BSC), open to the public, (8) a planned residential community of approximately 4,500 acres located west of Highway 89 near Emigrant, known as the "Community of Glastonbury," together with a 49-unit mobile home park subdivision known as the Golden Age Village included therein, and (9) the maintenance of an in-house engineering and construction crew for farm and ranch projects and the Church's facilities.

1.2.2 Church Property

The Park County property includes a number of separate units located in the Paradise Valley between Livingston and Gardiner as follows.

1.2.2.1 Royal Teton Ranch - South

The property is approximately 12,000 acres. It is four miles north of Gardiner, mostly west of the Yellowstone River and Highway 89 (former Forbes Ranch) and adjacent to Corwin Springs. This includes the East Gate Work Camp, Spring Creek Church Headquarters, Ranch Office, Ranch Headquarters, Conference Site and Mol Heron Shelter.

1.2.2.2 OTO Ranch Property

The OTO Ranch encompasses approximately 3,300 acres, is eight miles north of Gardiner, three miles north of Corwin Springs, and is east of the Yellowstone River and Highway 89. The ranch was sold in its entirety to the Rocky Mountain Elk Foundation, which in turn transferred most or all of it to the U.S. Forest Service. The Church has leased back a 52-acre parcel adjoining U.S. Highway 89--which includes several buildings--until June 30, 1993. The uses of these leased buildings include preschool, residences, and fire engine storage.

1.2.2.3 Mol Heron Conference/Shelter Site

The Mol Heron Shelter Complex, including associated facilities, consists of approximately 13 acres adjacent to the conference grounds located in Section 9, Township 9 South, Range 7 East on the RTR-S. The complex consists of six nearly identical underground shelters, a central storage shelter, a livestock fallout shelter, outdoor storage units, grain bins and associated mechanical systems, roads, and fencing. The conference grounds consist of tent sites, a road system, parking areas, three bridges, site utilities, walkways, designated camping areas, shower houses, and fencing.

1.2.2.4 Royal Teton Ranch - North

The RTR-N consists of approximately 10,000 acres, situated about 12 miles south of Livingston. Improvements include at least a dozen dwellings, barns, corrals, a feedlot, a large horse barn, numerous sprinkler irrigation systems, a shop, an office facility, fencing and other farm and ranch facilities. Activities include farming of hay, alfalfa, grain, and vegetable crops, cattle and sheep ranching, the raising and processing of poultry, a minor amount of timber harvesting, residential housing for staff and associated religious services, and a preschool and elementary school for the children of the Church staff. (Reference 1.5.1.3, 1.5.1.4 and 1.5.1.5 in **Church Developments Since Publication of DSEIS** for changes that have occurred on the RTR-N.)

1.2.2.5 Glastonbury South

Glastonbury South (Glas-S) **(Map 1-11)** consists of approximately 3,000 acres and is about 28 miles south of Livingston. Activities include a planned residential land division for members of the Church and the associated development of roads, electrical and telephone systems. Individual purchasers are responsible for the development of their own water and septic systems, residential dwellings, driveways, landscaping and appurtenant facilities (such as a garage or fallout shelter). The Glastonbury Administrative Office is at Glastonbury-South. This property also includes approximately 250 acres of irrigated farmland and 250 acres of rangeland retained by the Church that is currently leased for agricultural purposes.

1.2.2.6 Glastonbury North

Glastonbury North (Glas-N) consists of approximately 1,500 acres, and is about 23 miles south of Livingston. Activities include a planned residential land division for members of the Church and the associated development of roads, electrical and telephone systems. Individual purchasers are responsible for the development of their own water and septic systems, residential dwellings, driveways, landscaping and appurtenant facilities (such as a garage or fallout shelter). Also located at Glas-N is the Golden Age Village, a 49-lot mobile home park subdivision completed in 1988.

1.2.2.7 The Former Royal Teton Ranch Dairy

This property consists of approximately 40 acres, about 20 miles south of Livingston on the East River Road. Improvements consist of one mobile home dwelling, a dairy barn and associated corrals. Currently, there are no activities conducted on the property other than the residential use of the dwelling. Dairy farming ceased several years ago. (Reference **1.5.1.4 Other Exchanges and Sales** concerning the sale of the dairy.)

1.2.2.8 Other Locations

There are no other Church properties owned in Park County not associated with one of the above locations. Leased properties include the following:

Big Spur Campground

The BSC consists of approximately 10 leased acres, and is about 13 miles south of Livingston on U.S. Highway 89. Trailer court licensing for the facility includes 19 mobile homes, 14 recreational vehicles and seven tent sites with service connections. Also included at the site is a general store, laundry, shower house, pool, playground, sewage lagoon (on a separate one-acre site/currently unused), manager's apartment and additional camping sites without service connections. One of the mobile home sites has been used to operate a small mobile community kitchen for Church staff housed at the facility.

Livingston Industrial Park

The park consists of 30 leased acres, 2 miles east of Livingston on the U.S. Highway 89 Business Loop. Activities include warehousing, outside storage, grain storage, maintenance, and miscellaneous activities related to the Church's agricultural, publishing, and construction operations.

Livingston Railroad Yard

The yard consists of portions of two railroad buildings inside the city limits of Livingston. Activities include publishing, distribution, data processing, warehousing, and related activities.

Small Shop Building/Corwin Springs

The shop is a small metal building approximately two miles north of Corwin Springs adjacent to the Yellowstone River. It is used as an auto maintenance shop.

Student Housing/Glastonbury

Extra housing for students attending Summit University is occasionally leased from landowners in Glastonbury on a quarterly basis.

1.2.2.9 Location Maps

The maps of the Church's property and proposed developments include the:

1. Royal Teton Ranch/Park County (Map 1-1/Rev. 93-4),
2. Royal Teton Ranch - South (Map 1-2/Rev. 93-4),
3. Spring Creek Church Headquarters (Map 1-3/Rev. 93-4),
4. East Gate Work Camp/Corwin Springs Area (Map 1-4/Rev. 93-4),
5. Ranch Office Area (Map 1-5/Rev. 92-3),
6. Ranch Headquarters Area (Map 1-6/Rev. 93-4),

6A. Ranch Headquarters Area/Tree Farm New Residence Entrance (Map-6A/Rev.93-2),

7. Mol Heron Conference/Shelter Area (Map 1-7/ Rev. 93-2),
8. Royal Teton Ranch North (Map 1-8/Rev. 93-2),
9. Community of Glastonbury (Map 1-9/Rev.93-2),
10. Glastonbury North (Map 1-10/Rev. 93-2),

10A. Glastonbury North New Entrance Road (Map 1-10A/Rev.93-2),

11. Glastonbury South (Map 1-11/Rev. 92-1),
12. Golden Age Village (Map 1-12/Rev. 92-1) and
13. Big Spur Campground (Map 1-13/Rev. 92-1).

1.3 Proposed Actions

1.3.1 Decisions to be Made

Due to a number of events that followed the department's first environmental review, the Church decided to submit additional proposals for the DHES's approval. Montana law, in Section 75-6-112, Montana Code Annotated (MCA), requires plans and specifications for water and wastewater systems serving 25 or more persons be reviewed for public health and engineering adequacy. Montana law further requires, in Section 75-11-201, MCA, the DHES to license underground storage tank (UST) installers and removers, establish requirements for inspectors and issue permits for installations, repairs or removals, and Section 75-10-405 MCA, requires specific design, construction, installation, and operation standards.

As a result of this FSEIS, decisions will be made for each of the following permit applications:

1.3.1.1 Royal Teton Ranch - South

Water Quality

1. East Gate Work Camp - Increase Permitted Use of System

    a. Wastewater system

2. Spring Creek - New

    a. Wastewater system
    b. Water system

Underground Storage Tanks

Mol Heron Shelter Complex - Reinstallation of underground fuel storage tanks

1.3.1.2 Glastonbury North

Water Quality

Golden Age Village - Expansion

a. Wastewater system
b. Water system

1.3.1.3 Royal Teton Ranch - North

Water Quality

Community Kitchen - Public or Private Systems

a. Wastewater system
b. Water system

The DHES's Water Quality Bureau (WQB) is reviewing engineering information on proposed public water and wastewater facilities, and the Solid and Hazardous Waste Bureau's (SHWB), UST Program is reviewing applications for licensing the reinstallation of fuel storage tanks at the Mol Heron site. Park County will be reviewing the private water and wastewater systems at the Mol Heron Shelter.

1.4 DSEIS - DHES' Preferred Alternative

Based on the information presented in the DSEIS, the DHES' recommended alternative was:

Alternative 3: Approve with Mitigation Plan and Recommendations

The following is a summary of the mitigation measures proposed or recommended for impacts on various resource topics. Those mitigation measures that are asterisked (*) are recommended for consideration because of possible cumulative impacts, not because of identified primary, secondary and reasonable foreseeable cumulative impacts of the proposed development. The potential cumulative impacts of possible future development may never materialize if the Church does not engage in a large amount of development or expansion above and beyond what it has presently proposed. Therefore, the Church would be allowed to begin construction of the proposed developments contingent upon the Church's agreement to conduct the mitigation measures relative to identified primary, secondary and cumulative impacts of known activities. It is recommended that the Church consider the asterisked mitigation measures in its future planning, particularly if any large-scale development beyond the current proposals is considered in the future. All applicable provisions of the "Mitigation Plan Agreement" in the FEIS would continue or be modified as stated under this alternative (Appendix A).

Identified Mitigation Measures

1. Physical Environment

Wildlife

- Powerlines to be constructed according to Olendorff (1981)
- * Multiple Species Conservation Plan

Aquatic Life & Habitats

- Sedimentation controls such as hay bales on construction sites, revegetation and landscaping where appropriate
- Development of spill containment/emergency response plan
- Develop a sediment control plan in conjunction with tank installation at Mol Heron Shelter
- * Baseline study of invertebrate communities and use by spawning fish (recommended)
- Develop in cooperation with the Montana Department of Fish, Wildlife

and Parks (DFWP) a catch and release for Yellowstone Cutthroat Trout during annual conference (proposed change from existing policy of one fish per fisherman)

- Vegetation buffer zone between Golden Age Village and Fridley Creek

Water

- Emergency Response Plan for remediation of potential future fuel spills
- Use of a lagoon for final treatment of wastewater at Golden Age Village
- Replacement of the Blue House Kitchen drain field in an area outside the 100 year flood plain
- Use of the sedimentation control measures described in the Church's preliminary engineer's reports
- The geothermal well drilled to tap the aquifer serving LaDuke Hot Spring will only be used in accordance with the terms and conditions of the Certificate of Water Right issued by the Department of Natural Resources and Conservation (DNRC) until a change in point of diversion and place of use is authorized for Church's LaDuke Hot Spring Water Right by the DNRC under Montana Law.

Geology

- No mitigation measures recommended

Soils

- No mitigation measures recommended

Botanical Resources

- Map all plant communities on the ranch - in conjunction with the Multiple Species Conservation Plan listed as a mitigation measure for wildlife *
- Consult with the Soil Conservation Service (SCS) for restoration of vegetation in sagebrush steppe communities
- Stockpile 2-6 inches of topsoil for reclamation of construction projects where excavation will occur
- Restrict heavy vehicle traffic on construction sites to avoid compaction
- Use seed mixtures and species in consultation with the SCS
- Monitor restored sites to determine if irrigation is necessary
- Mulch, if required, with materials free of weed seed
- Avoid driving vehicles in weed-infested areas
- Implement a weed control program for gravel pits

Aesthetics

- Development of Church guidelines for building heights in conjunction with state building code laws; design criteria for building color, roof line and building placement; and use vegetation in shelter belts to make development more compatible with the surrounding environment

Air Quality

- Apply water to settle the dust at construction sites, as necessary

Historical and Archeological

- * Consider structural rehabilitation of the old plunge at Corwin Springs
- * Additional subsurface excavation at Site 24PA758, if future construction occurs
- Fence off, protect and otherwise guarantee that the historic features along the Yellowstone trail contained within the lagoon project area would not be disturbed, or small scale excavation of select localities along the Yellowstone trail contained within the lagoon project area, and photograph and map the historic advertising boulder; then move the boulder to an appropriate museum facility
- * Class III inventory of cultural resources at the Golden Age Village project site
- * Class III inventory of cultural resources on appropriate areas of Church properties prior to future development

Land Use

- No mitigation measures recommended

2. Human Environment

Mitigation measures are not recommended except in the following cases:

Fire Protection

- * Complete the plans for fire protection at East Gate that were described in the DEIS

Roads and Traffic

- Assist the county in paving and widening the county road from the

Ranch Office to Ranch Headquarters

- Assist the state and county in replacing the Corwin Springs Bridge:
- Participate in a voluntary resolution process among Park County, Gardiner Residents, Yellowstone National Park (YNP) and the Church for alternate routing for truck traffic through Gardiner (and specifically across the school parking lot)
- Joint Church-county review of road and bridge conditions before and after fuel tank installation in Mol Heron and road re-conditioning as necessary after installation

1.5 Significant Actions Since Publication of the DSEIS

1.5.1 Church Developments

1.5.1.1 New Bridge and Road to Access New Residence Adjacent to Trestle Ranch

Map 1-6 in the DSEIS indicated a new single family home to be built adjacent to the Trestle Ranch near Mol Heron Creek. Since the DSEIS, the Church has provided additional information on the access to the home. A bridge across Mol Heron Creek provides access to the driveway for the new home. A 310 Permit was obtained from the Park Conservation District and a septic permit has also been obtained from the county. The single family residence is not in keeping with the Church's development guidelines which state that housing and work areas are to be cluster-type developments.

1.5.1.2 New Post Office

As described in the DSEIS, the Church's subsidiary, Lanello Reserves, Inc., provides postal service in Corwin Springs under a "Community Service Contract". The post office operated under this contract is located within the General Store adjacent to the Ranch Kitchen restaurant. Lanello Reserves, Inc. plans an addition to the back of the store for the post office. The addition will be approximately 750 sq. ft. and is needed to accommodate the post office and additional storage space.

1.5.1.3 Changes in Leasing Portions of the RTR-N

The Church recently leased 1,666 acres of irrigated cropland at the RTR-N. The lease cancels a prior crop share agreement with the same party and will run for a period of five years. The Church is also planning to lease grazing rights at RTR-N.

1.5.1.4 Other Exchanges and Sales

The Church has entered into several agreements to sell or exchange property from the perimeter of the RTR-N. All of these transactions were entered into subsequent to the issuance of the DSEIS. The property being sold is unimproved and includes approximately 300 acres of irrigated cropland, 2,560 acres of forest and 2,300 acres of dry range, plus approximately 750 acres of state lease. Brand S Lumber of Livingston purchased the forest land.

The 40-acre dairy property along the East River Road was sold and will no longer be occupied by the Church. The Church removed the existing mobile home and 50' x 175' steel barn. The Church is considering the re-erection of the steel building at the Trestle Ranch to replace old wooden barns.

An exchange of several small parcels is also being carried out with an adjacent landowner to realign common ownership boundaries along Divide Road. Approximately 60 acres will be exchanged by each party on each side of the Divide Road as shown on the mapping update for the RTR-N.

1.5.1.5 Additional Land Division into 20-Acre Parcels

Approximately 220 acres in the RTR-N has been or will be divided into parcels ranging in size from 20.1 acres to 39 acres. A Certificate of Survey was filed in the Park County Clerk and Recorder's office on March 30, 1993. The parcels are located along the Old Yellowstone Trail County Road.

1.5.1.6 IRS Audit

On November 23, 1992, the IRS filed a final adverse determination letter to revoke the Church's exempt status for all tax years after April 30, 1987. Any amounts over $1,000 donated to the Church after November 23, 1992 may be disallowed. In addition, the IRS says the Church owes nearly $1.7 million in contested taxes, interest and penalties. The Church filed suit seeking to overturn the IRS action. The trial was postponed for six months this September while the two parties discuss a possible settlement. In the interim, the Church has mortgaged nearly 4,000 acres of the RTR-S as collateral to defer payment on what the IRS says it owes.

The Church has reorganized several business practices since the issuance of the DSEIS in November 1992. Royal Teton, Ltd. (RTL) was reactivated as a subsidiary of the Church to carry on most farming and ranching operations, poultry raising and processing and mobile home sales activities previously conducted by the Church. Approximately 1,000 acres of land is being transferred to RTL together with 170 acres of state lease and U. S. Forest

Service grazing permits. RTL will also lease most of the unimproved portions of the RTR-S from the Church for farming and ranching purposes.

The Church is granting approximately 1,300 acres of land to Summit University, including the land for the Spring Creek Headquarters campus. The non-profit corporation is likely to complete the construction of the campus.

1.5.1.7 Settlement of the Park County Lawsuit Against Glastonbury Landowners

In an out-of-court agreement reached in April between the Church, the owners of two Glastonbury parcels and Park County, the landowners agreed to comply with local subdivision and sanitation laws. The agreement requires the defendants to record all property interests within 120 days, fully comply with Park County sewage regulations, apply for subdivision review where more than one mobile home is located on a single tract of land, and dedicate land in subdivisions for public parks or pay Park County cash-in-lieu of park land. Park County agreed to recognize the legality of all existing multiple tenancy-in-common ownership interests in Glastonbury parcels and dropped all other claims of alleged subdivision violations against the Church and other Glastonbury landowners.

1.5.1.8 Possible Reconfiguration of Spring Creek Site

The Church is considering possible revisions to the Spring Creek Headquarters configuration. The number and function of buildings, total space, population and overall acreage will not be changed.

1.5.1.9 Additional Shower Houses at the Mol Heron Campground

A second set of shower houses at the walk-in campground at the Mol Heron Conference Site is being considered. No plans have been prepared.

1.5.1.10 Underground Water Storage Tanks for Fire Control

Underground water storage tanks are being considered at several locations to provide a ready supply of water for fire truck use.

1.5.1.11 Modification of the Headgate Diversion from Mol Heron Creek

Modification of the headgate diversion of irrigation water from Mol Heron Creek is planned for sometime in the future. The existing headgate is old. Plans will be developed in consultation with Soil Conservation Service and the Montana Department of Fish, Wildlife and Parks.

1.5.1.12 Temporary Installation of Office Trailer at East Gate Workcamp

On May 7, 1993, the DHES was notified of a proposed installation of an unplumbed modular office trailer at East Gate Workcamp. The office would augment existing office space and be used by up to six full time staff in preparing for the Church's 1993 annual conference. No state permits or authorizations were required.

1.5.1.13 Purchase of Two Forbes Properties, RTR-S

In September 1993 the Church announced it reached an agreement with the Forbes organization to purchase two properties within or near the RTR-S. The lands include:

1. A 100-acre parcel and house in Section 11, Township 9 South, Range 7 East, known as the "Hilltop Mainhouse Property," (reference Map 2-1 on Page 1-17) and

2. The "Wilderness Property," 150 acres in Section 28, Township 8 South, Range 8 East, which is within the boundaries of the Absaroka-Beartooth Wilderness (reference Map 2-1 on Page 1-17).

The Church describes the Hilltop Mainhouse as a hunting lodge type of residence. It is a one-level, three bedroom log structure, which has approved water and sewer services. The house is not fully insulated, so will only have seasonal use. The Church initially plans to manage the house as a vacation rental and hunting lodge. There are also two other buildings adjacent to the house. One is a bunkhouse with two rooms and a bathroom, and the other is a "tack" shed for storage.

The Wilderness Property is about a mile and a half east of Corwin Springs, along Basset Creek. Since the property is in a designated wilderness area, access is a consideration. The 1986 revised version of the U.S. Forest Service (USFS) Gallatin National Forest map shows a foot trail beginning at LaDuke Hot Spring winding up the mountain in a northeasterly direction, passing the private inholding about a mile and a half from the trail head.

If landowners in wilderness areas wish to access their property by a means other than on foot or by pack animal, they must apply for and receive a special-use permit from the USFS. These requests are reviewed on a case-by-case basis.

According to the Church, there are no buildings on the Wilderness Property, but there are remnants of structures. Initially the Church plans to lease the property to an outfitter. There are no long-term plans for the property.

1.5.1.14 County Comprehensive Planning

Church members Edward Francis and William Smith have been appointed by the Park County Commission to be members of the Gardiner Comprehensive Plan Advisory Committee. Other members of the committee include Julia Page, Richard Parks, Mike McLean, Ron Gardner, Peter Schmidt and Mary Hagemeyer.

1.5.1.15 Glastonbury Reclamation Incentive Program

The Church started a Reclamation Incentive Program for landowners in the Community of Glastonbury. Under the terms of this cost-share program, the Church is offering to give free topsoil to landowners who will carry out an approved reclamation plan on their property to restore construction disturbances that occurred prior to September 30, 1992.

1.5.1.16 Changes in Cattle and Sheep Ranching

The Church is in the process of reducing the number of sheep on the RTR-S and proportionally increasing the number of cattle (reference **1.2.1 Church Activities** - Cattle and Sheep Ranching on the RTR-N and RTR-S).

By the end of next year the Church expects to have from 300-400 head of cattle. The sheep herd will have been reduced to about 100-200 head, and the Church plans not to graze them on public range.

As part of this management adjustment the Church plans to apply for a change in its USFS grazing allotment on Sentinel Butte from sheep grazing to cattle.

1.5.2 Developments at Glastonbury

1.5.2.1 Possible Retirement Facility

The Church reported that a group of residents in Glastonbury is considering the formation of a retirement boarding house or foster home for the aged. If the group decides to go ahead with the project, it will apply for the proper government permits. According to the Church, discussions have taken place concerning leasing property from the Church or in Golden Age Village, however no agreements have been reached or definitive plans formulated.

1.5.2.2 Subdivision Policies and Standards

A set of subdivision policies and standards has been adopted for the Community of Glastonbury, according to the Church. They incorporate provisions arising out of changes in the Montana Subdivision and Platting Act and the Park County Subdivision Regulations as well as the Settlement Agreement between Park County and the Glastonbury landowners.

1.6 Public Hearings and Comments

The DSEIS was distributed for comment on November 19, 1992. A total of 700 copies were published. Around 250 copies were sent to interested persons, and 200 copies were given to the Church for its members and members of the public upon request. The DHES also provided copies to the public when asked. The draft was sent to public libraries throughout Park County and to the Bozeman public library. Copies were sent to the State Library in Helena and the university libraries at Montana State University, Bozeman, and the University of Montana, Missoula.

A public hearing was held in Gardiner on January 5, 1993, to enable interested persons to comment on the DSEIS. The record of the hearing was kept open and the meeting continued the next night in Livingston (January 6, 1993) for the convenience of persons living in that part of the county.

Written reviews were accepted by the DHES until January 19, 1993. Letters postmarked after that date were not considered by the department when it reviewed the comments.

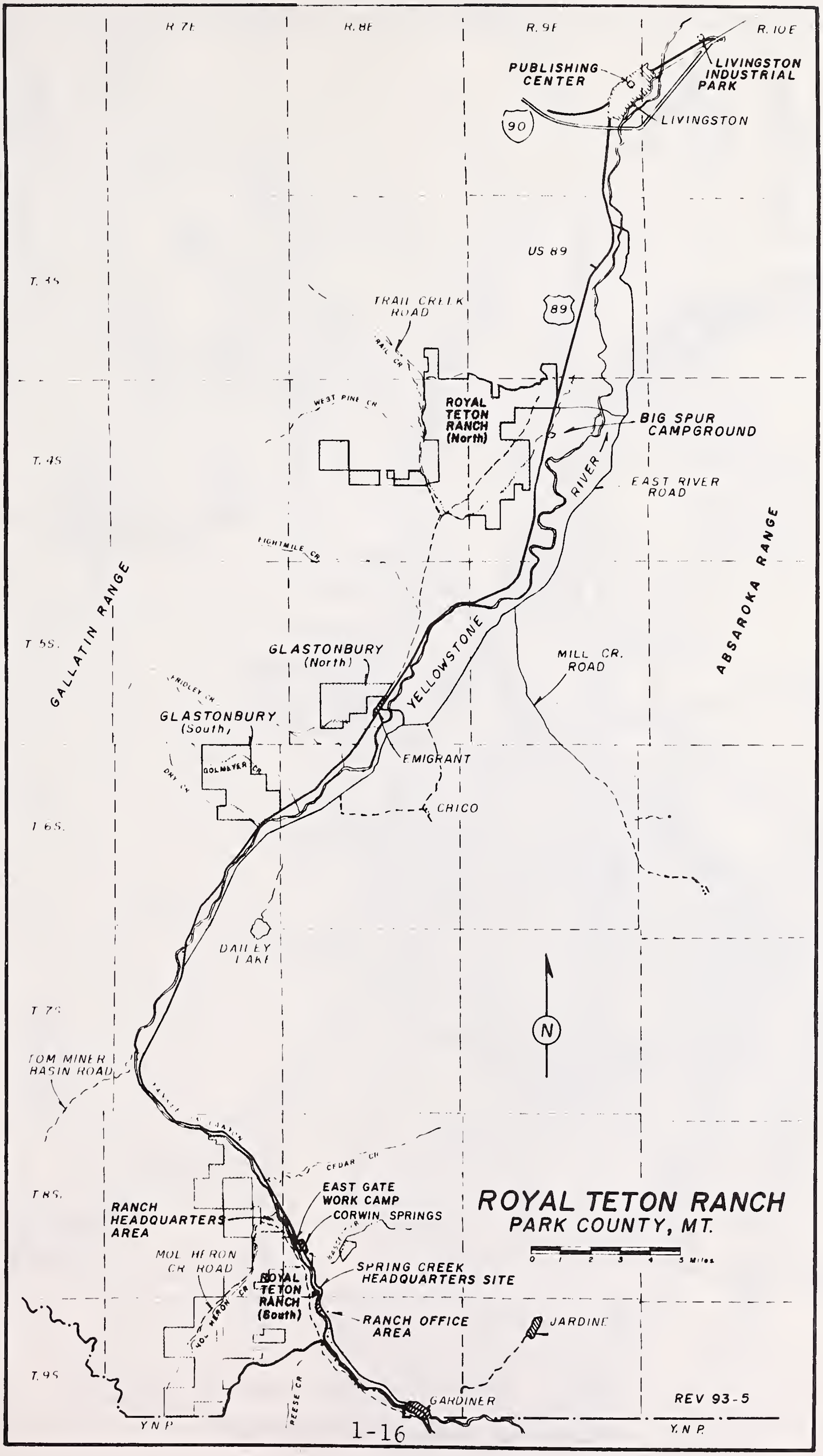
The department compiled the following statistics based on material submitted during the public hearings and letters sent to the DHES (Appendix B):

Public Hearing	Persons
Those testifying in Gardiner	16
Those testifying in Livingston	5
Total	21

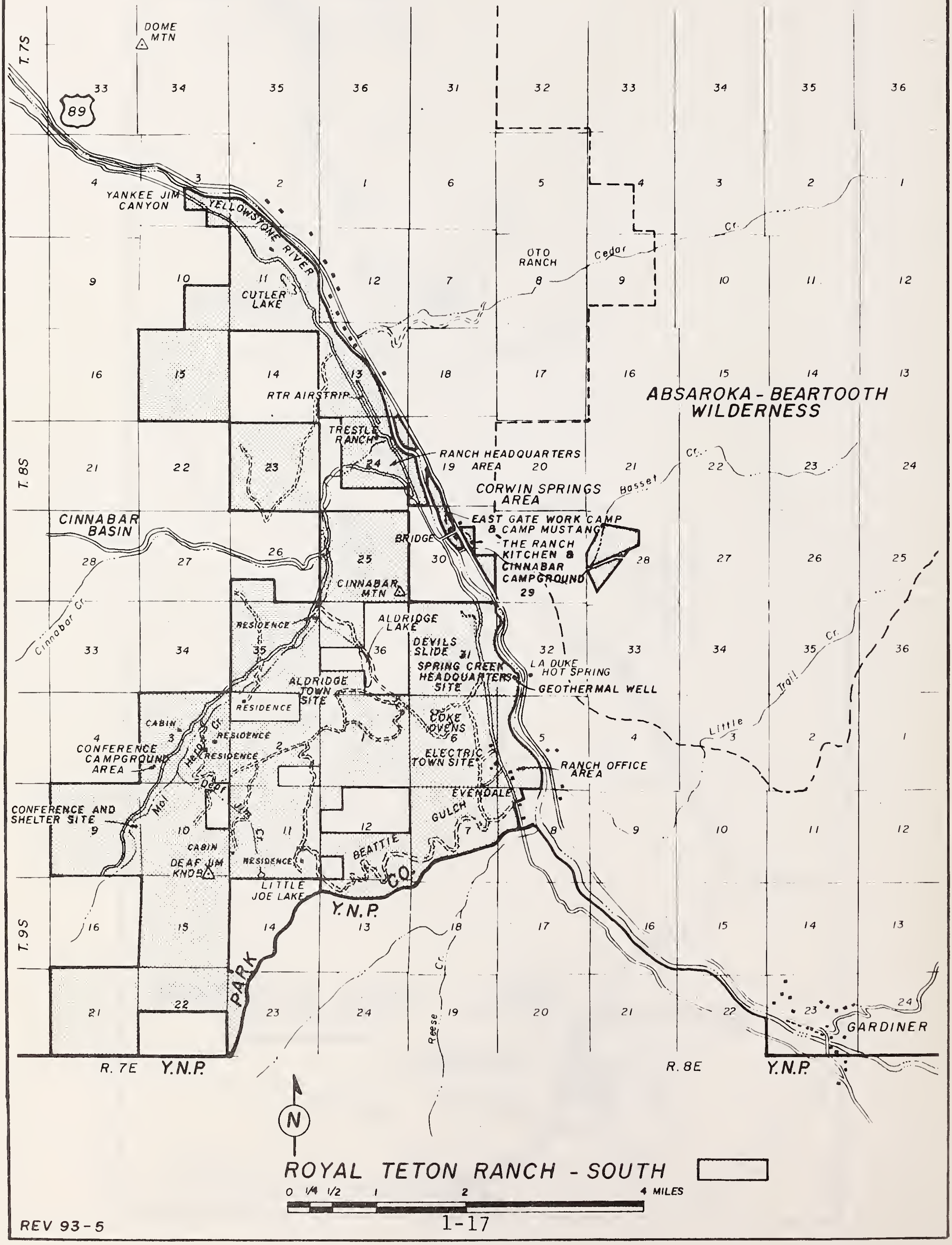
Written Comments	
Letters received before January 19, 1993	174
Letters received after the deadline	13
Total	187

MAPS

MAP 1-1

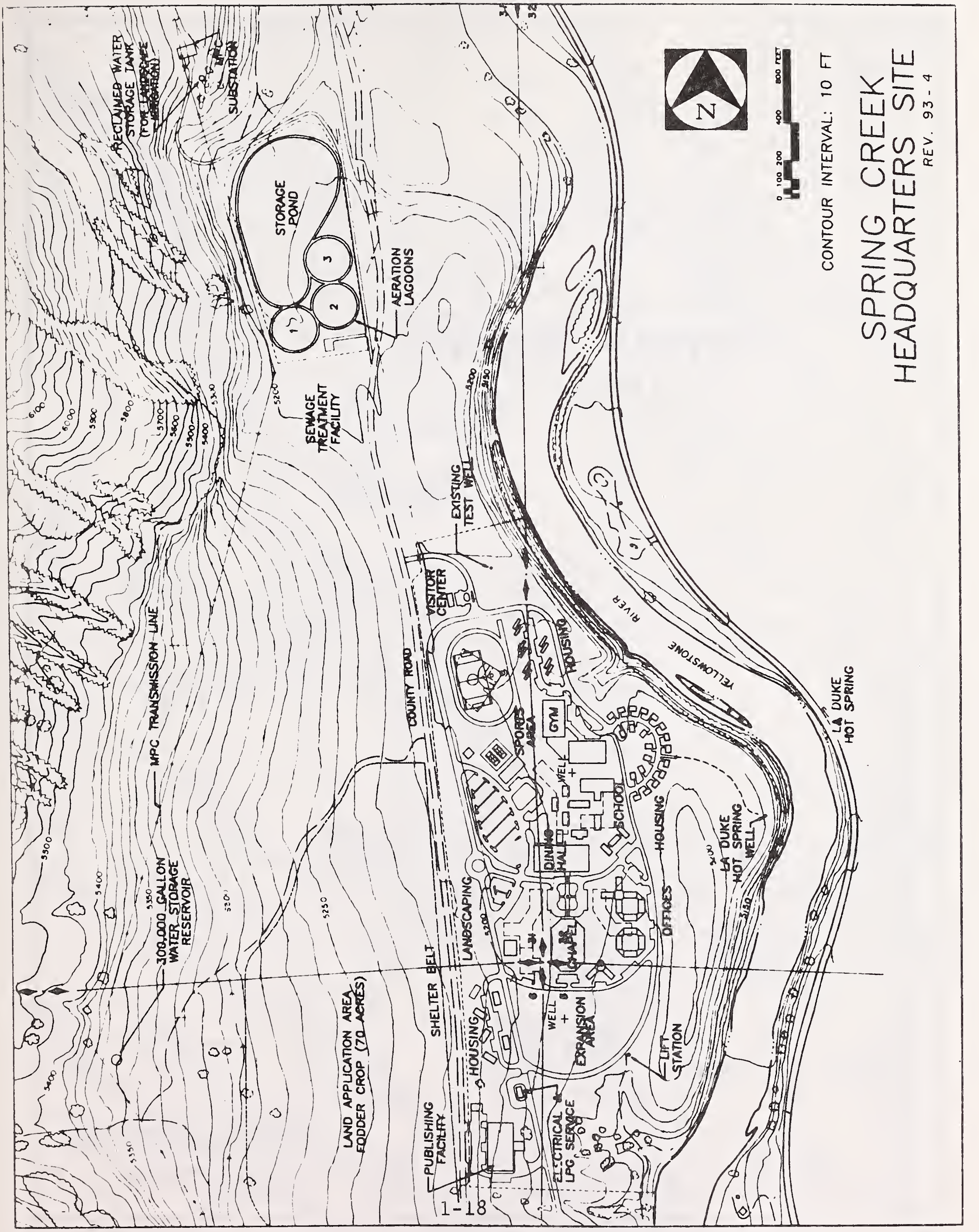

R.7E
R.8E
R.9E
R.10E
PUBLISHING CENTER
LIVINGSTON INDUSTRIAL PARK
LIVINGSTON
90
US 89
89
T.3S
T.4S
T.5S
T.6S
T.7S
T.8S
T.9S
TRAIL CREEK ROAD
TRAIL CR
WEST PINE CR
ROYAL TETON RANCH (North)
BIG SPUR CAMPGROUND
RIVER
EAST RIVER ROAD
ABSAROKA RANGE
EIGHTMILE CR
GALLATIN RANGE
GLASTONBURY (North)
YELLOWSTONE
MILL CR. ROAD
FRIDLEY CR
GLASTONBURY (South)
EMIGRANT
GOLMEYER CR
DRY CR
CHICO
DAILEY LAKE
N
TOM MINER BASIN ROAD
YANKEE JIM CANYON
CEDAR CR
EAST GATE WORK CAMP
RANCH HEADQUARTERS AREA
CORWIN SPRINGS
ROYAL TETON RANCH
PARK COUNTY, MT.
0 1 2 3 4 5 Miles
MOL HERON CR ROAD
MOL HERON CR
ROYAL TETON RANCH (South)
SPRING CREEK HEADQUARTERS SITE
RANCH OFFICE AREA
JARDINE
REESE CR
GARDINER
REV 93-5
YNP
Y.N.P.

MAP 1-2

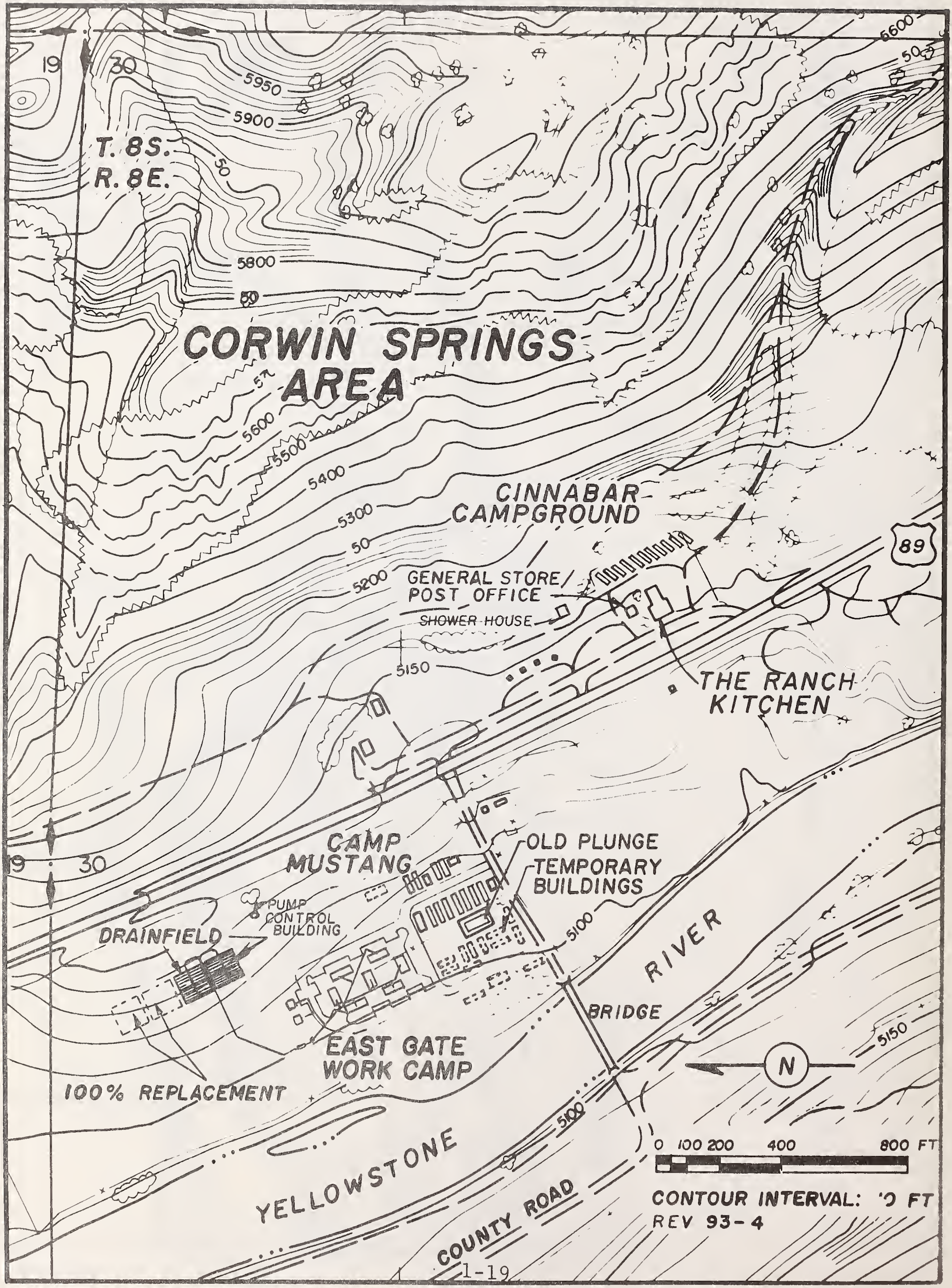


REV 93-5

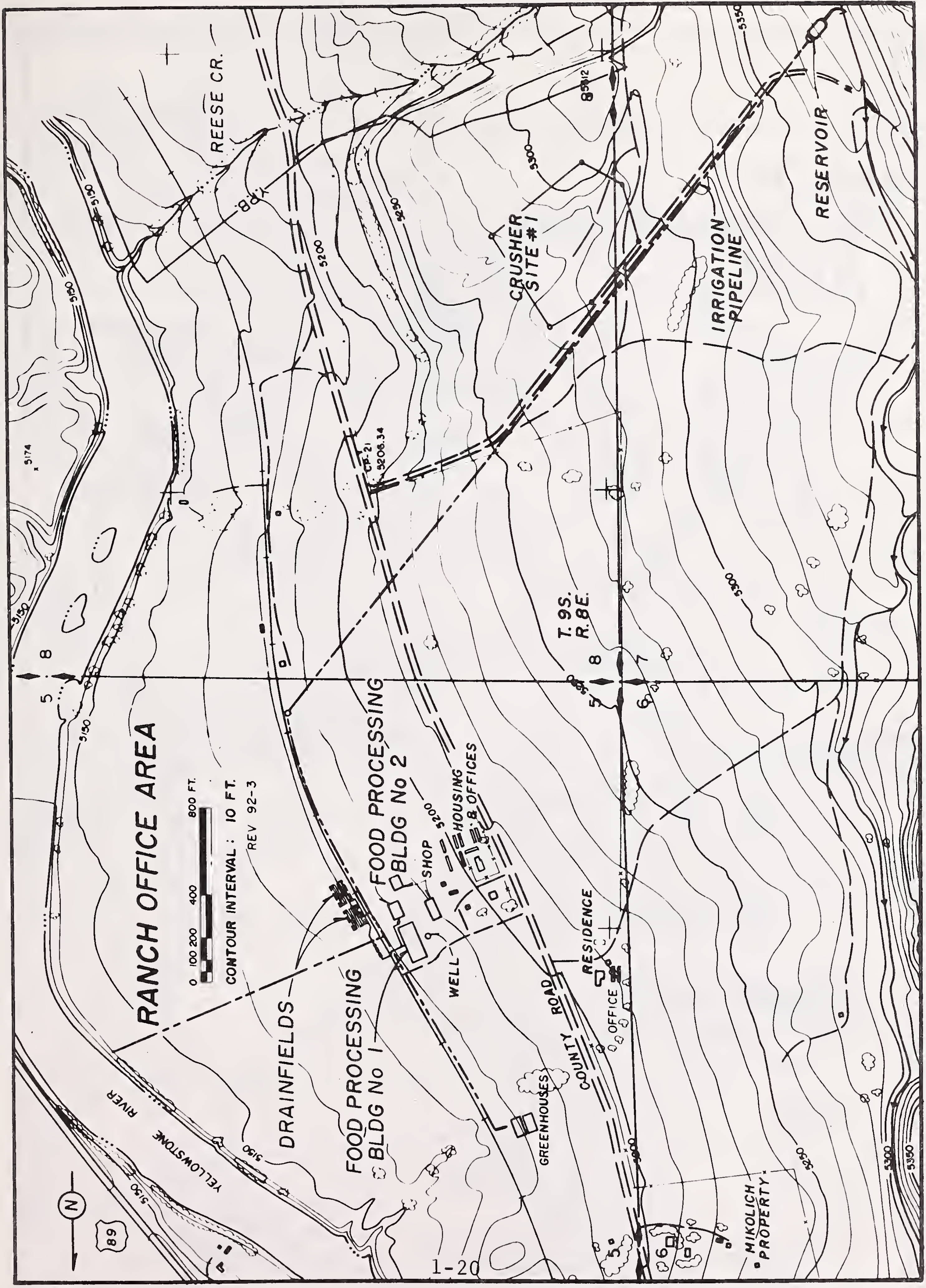
MAP 1-3


SPRING CREEK
HEADQUARTERS SITE
REV. 93-4
CONTOUR INTERVAL: 10 FT
0 100 200 400 800 FEET
N
RECLAIMED WATER STORAGE TANK (FOR LANDSCAPE IRRIGATION)
MPC SUBSTATION
STORAGE POND
1
2
3
AERATION LAGOONS
SEWAGE TREATMENT FACILITY
EXISTING TEST WELL
VISITOR CENTER
COUNTY ROAD
MPC TRANSMISSION LINE
HOUSING
SPORTS AREA
GYM
WELL
SCHOOL
DINING HALL
HOUSING
LA DUKE HOT SPRING WELL
YELLOWSTONE RIVER
LA DUKE HOT SPRING
OFFICES
CHAPEL
LANDSCAPING
SHELTER BELT
300,000 GALLON WATER STORAGE RESERVOIR
LAND APPLICATION AREA FODDER CROP (70 ACRES)
WELL
EXPANSION AREA
LIFT STATION
HOUSING
PUBLISHING FACILITY
ELECTRICAL LPG SERVICE
6100
6000
5900
5800
5700
5600
5500
5400
5300
5200
5200
5150
5400
5350
5300
5250
5200
5150
5500
5400
5350

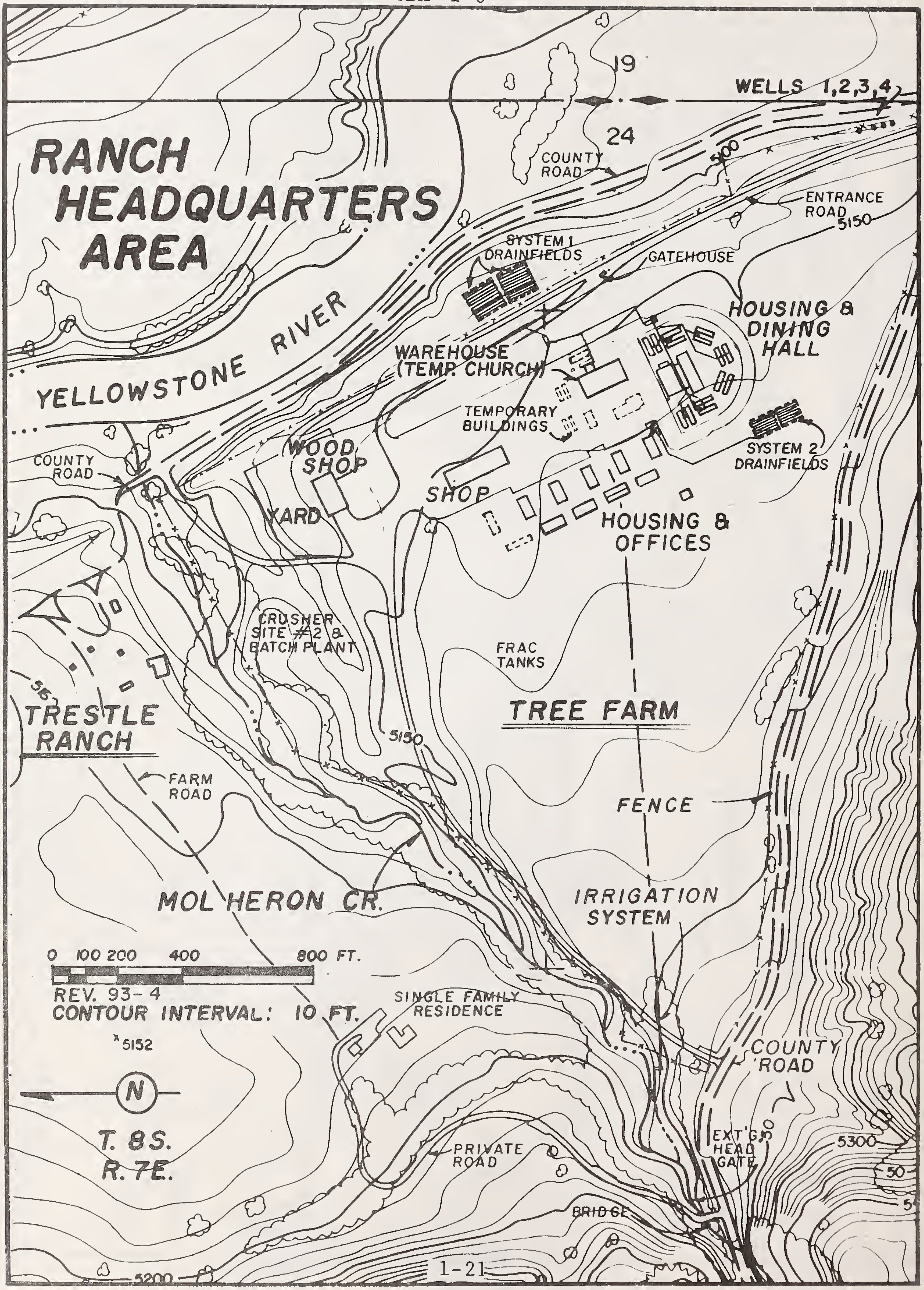
MAP 1-4


19
30
T. 8S.
R. 8E.
5950
5900
50
5800
50
CORWIN SPRINGS AREA
57
5600
5500
5400
5300
50
5200
CINNABAR CAMPGROUND
GENERAL STORE/ POST OFFICE
SHOWER HOUSE
89
5150
THE RANCH KITCHEN
6600
50
19
30
CAMP MUSTANG
OLD PLUNGE
TEMPORARY BUILDINGS
PUMP CONTROL BUILDING
DRAINFIELD
5100
RIVER
BRIDGE
EAST GATE WORK CAMP
100% REPLACEMENT
N
5150
5100
YELLOWSTONE
COUNTY ROAD
0 100 200 400 800 FT
CONTOUR INTERVAL: 10 FT
REV 93-4

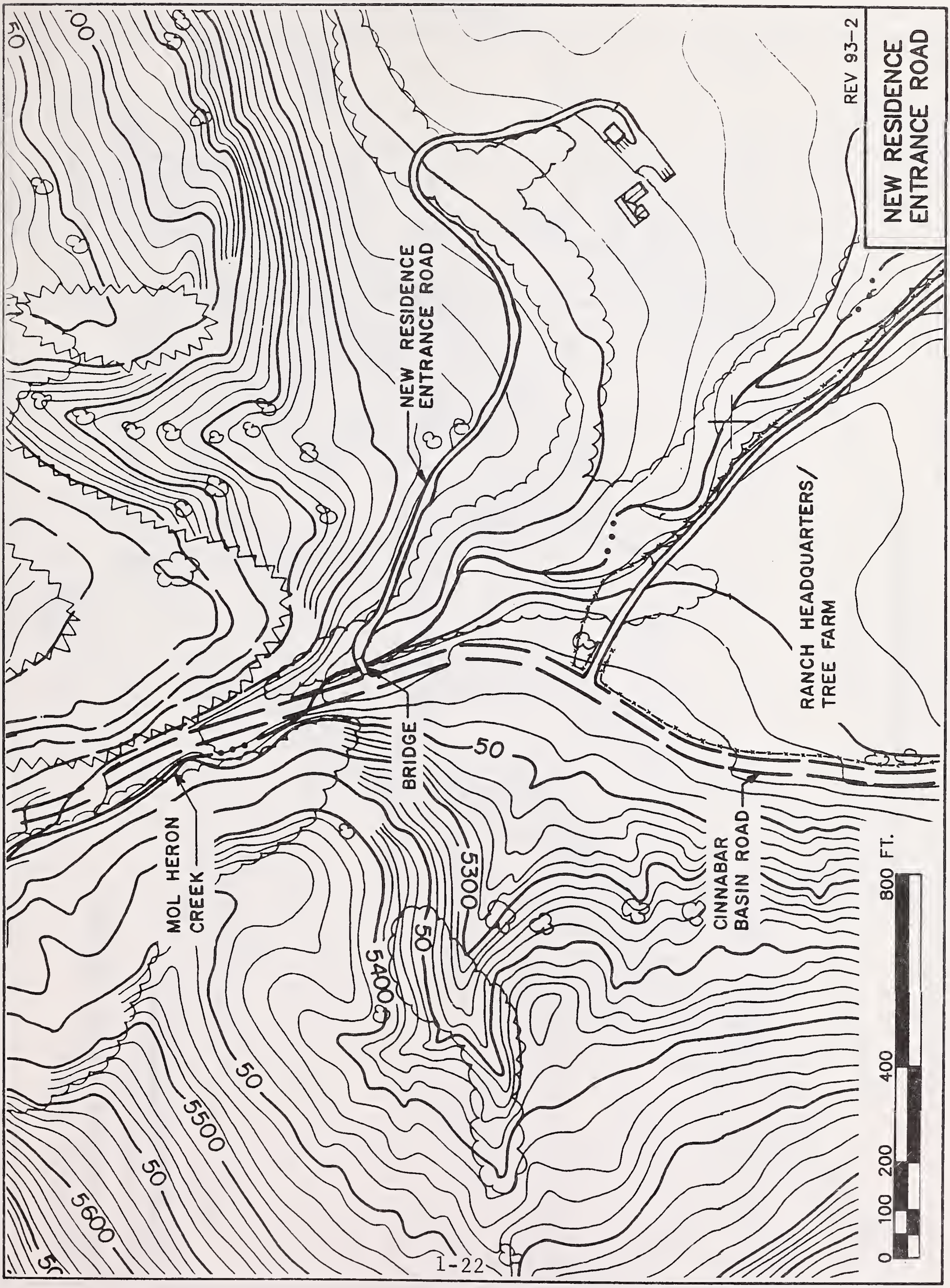
MAP 1-5

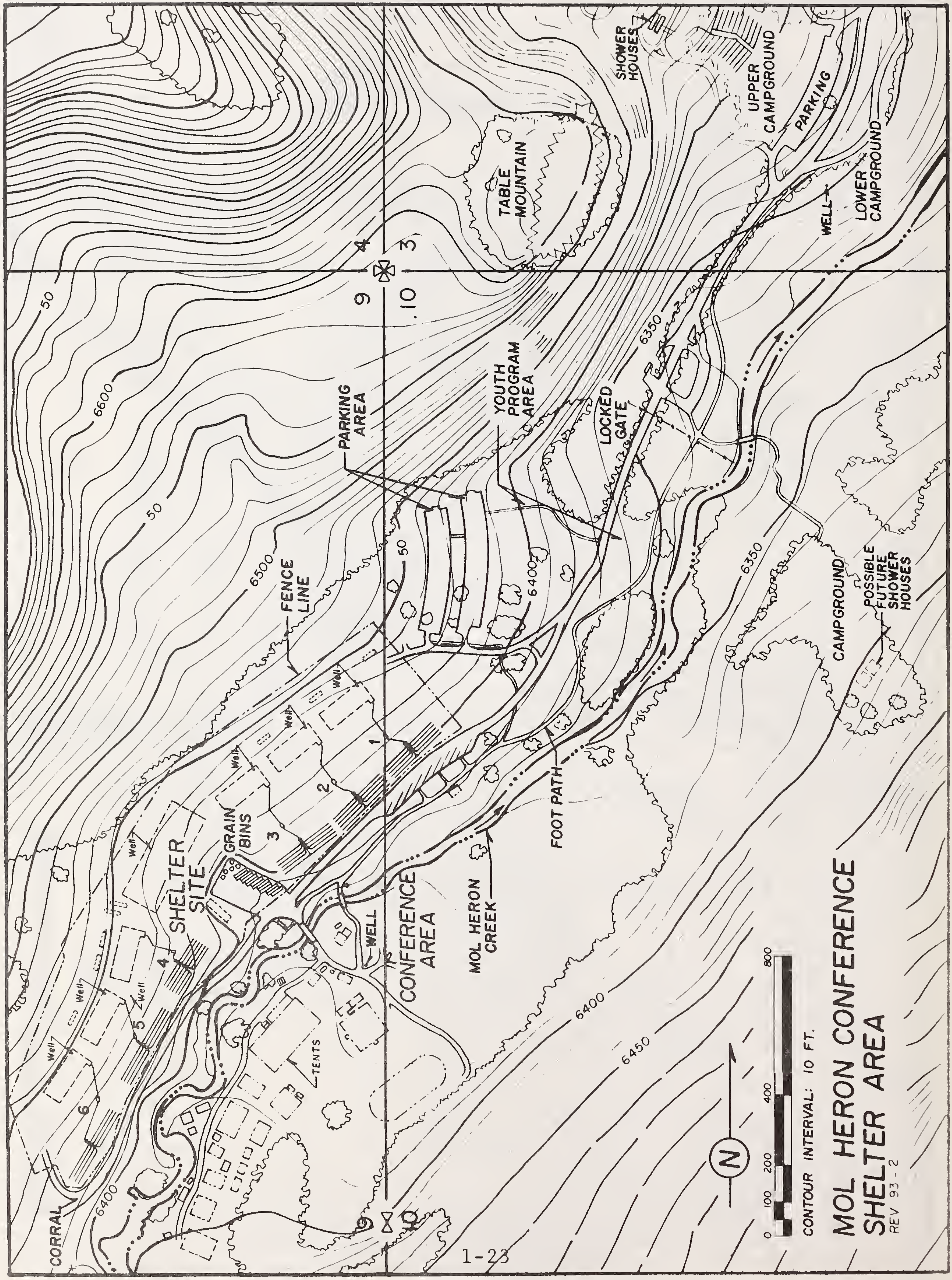

RANCH OFFICE AREA
0 100 200 400 800 FT.
CONTOUR INTERVAL: 10 FT.
REV 92-3
DRAINFIELDS
FOOD PROCESSING BLDG No 1
FOOD PROCESSING BLDG No 2
SHOP
HOUSING & OFFICES
WELL
GREENHOUSES
COUNTY ROAD
RESIDENCE
OFFICE
MIKOLICH PROPERTY
YELLOWSTONE RIVER
89
N
REESE CR.
CRUSHER SITE #1
IRRIGATION PIPELINE
RESERVOIR
T. 9S.
R. 8E.
CP-21
5206.34
5174
5150
5200
5250
5300
5350
5
8
6
7

MAP 1-6


RANCH HEADQUARTERS AREA
19
24
WELLS 1,2,3,4
COUNTY ROAD
5100
ENTRANCE ROAD
5150
SYSTEM 1 DRAINFIELDS
GATEHOUSE
HOUSING & DINING HALL
YELLOWSTONE RIVER
WAREHOUSE (TEMP. CHURCH)
TEMPORARY BUILDINGS
SYSTEM 2 DRAINFIELDS
COUNTY ROAD
WOOD SHOP
SHOP
YARD
HOUSING & OFFICES
CRUSHER SITE #2 & BATCH PLANT
FRAC TANKS
515
TRESTLE RANCH
TREE FARM
5150
FARM ROAD
FENCE
MOL HERON CR.
IRRIGATION SYSTEM
0 100 200 400 800 FT.
REV. 93-4
CONTOUR INTERVAL: 10 FT.
5152
SINGLE FAMILY RESIDENCE
COUNTY ROAD
N
T. 8S.
R. 7E.
EXT'G. HEAD GATE
5300
50
PRIVATE ROAD
BRIDGE
5200

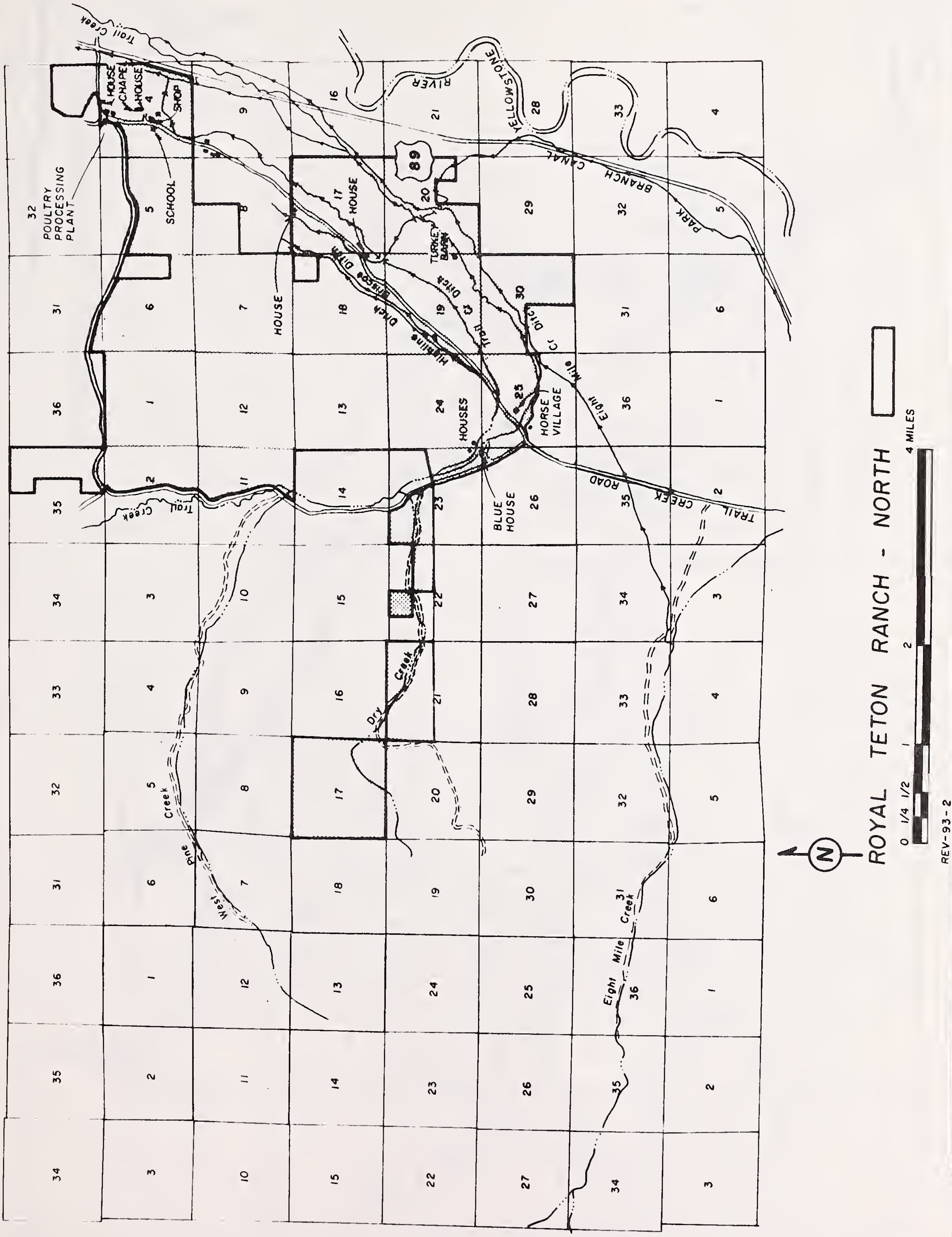
MAP 1-6A


NEW RESIDENCE ENTRANCE ROAD
REV 93-2
NEW RESIDENCE ENTRANCE ROAD
RANCH HEADQUARTERS/ TREE FARM
BRIDGE
MOL HERON CREEK
CINNABAR BASIN ROAD
50
5300
50
5400
50
5500
50
5600
50
00
50
0
100
200
400
800 FT.



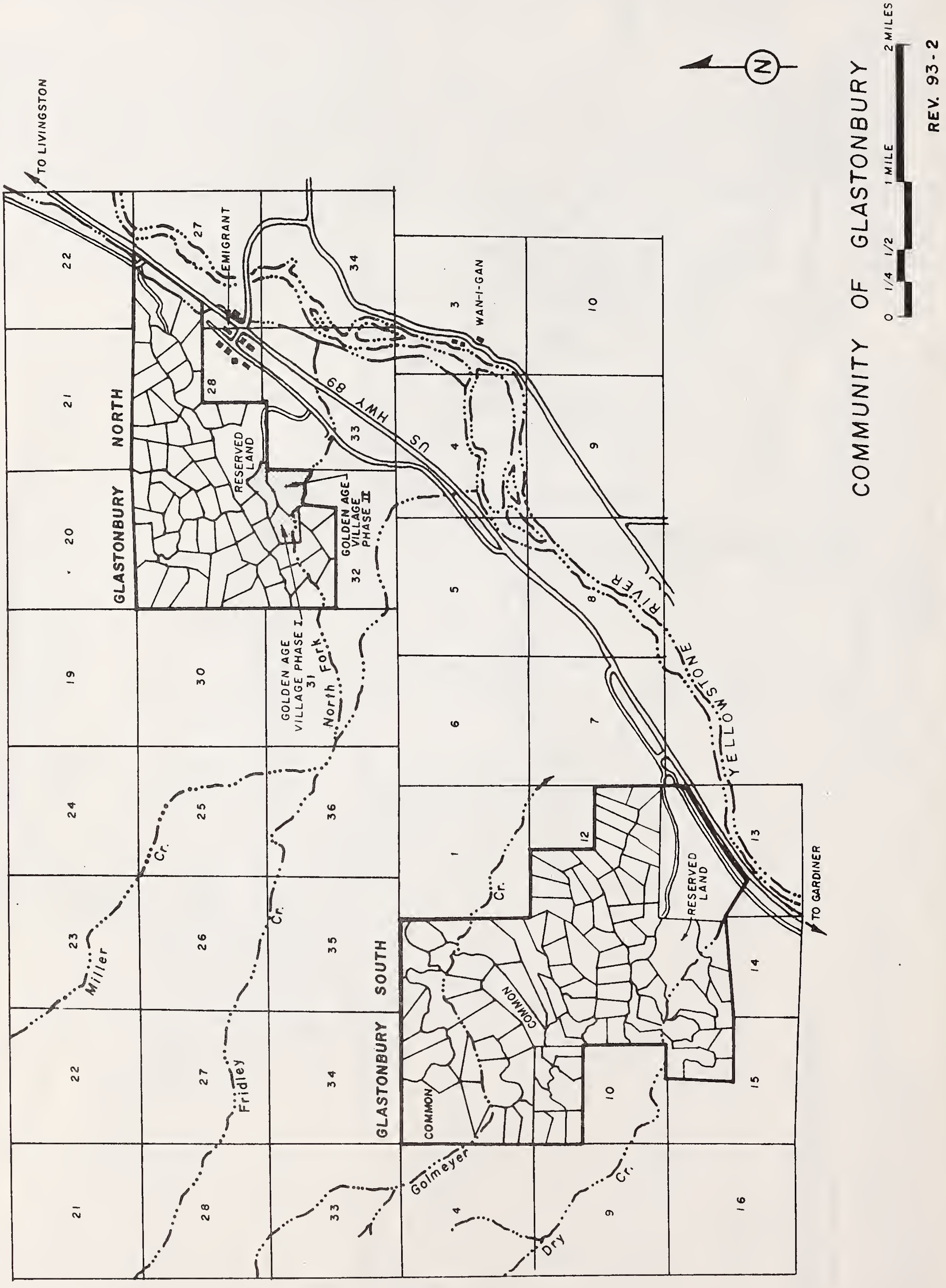
MOL HERON CONFERENCE SHELTER AREA

REV 93-2

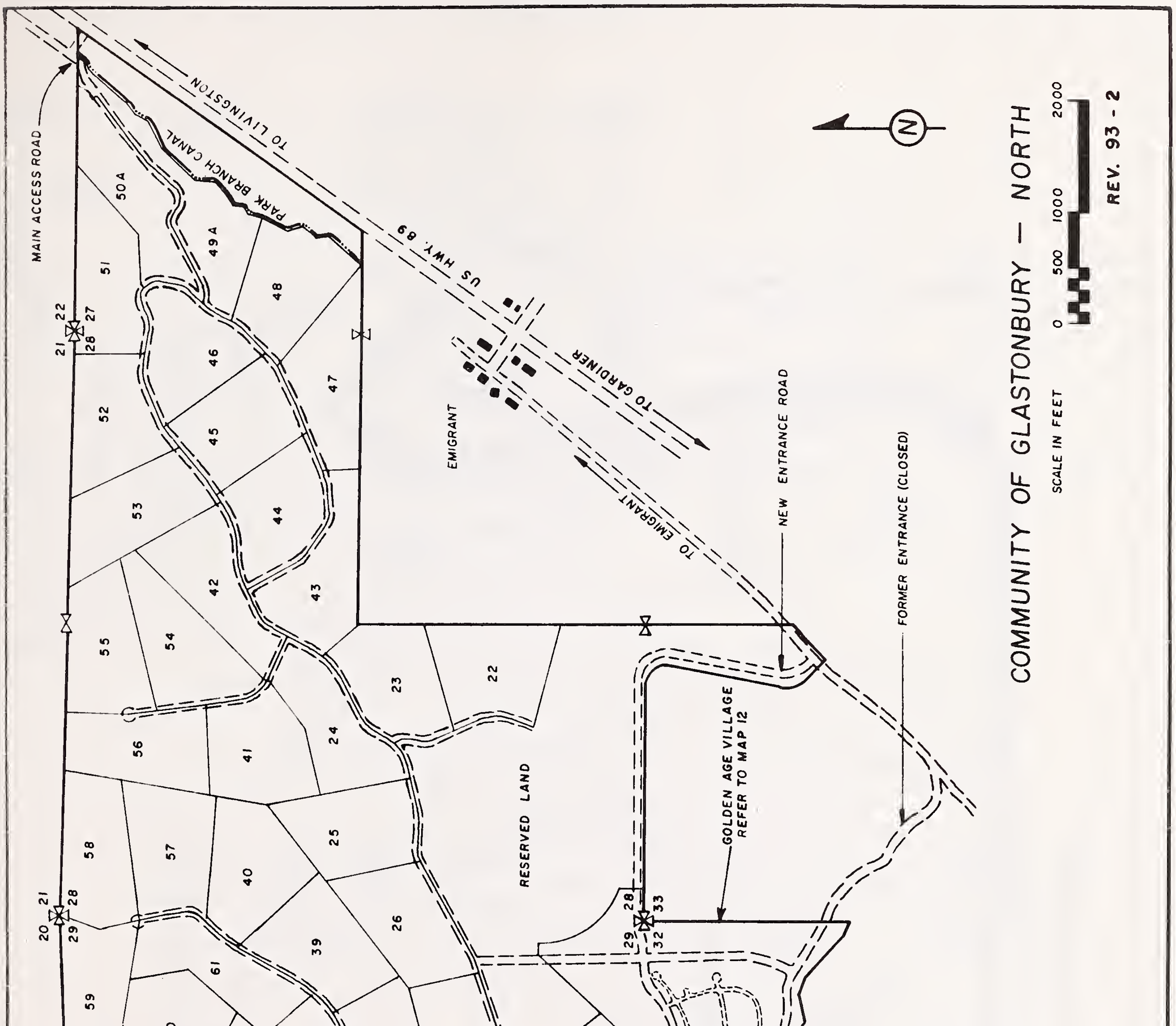


ROYAL TETON RANCH - NORTH

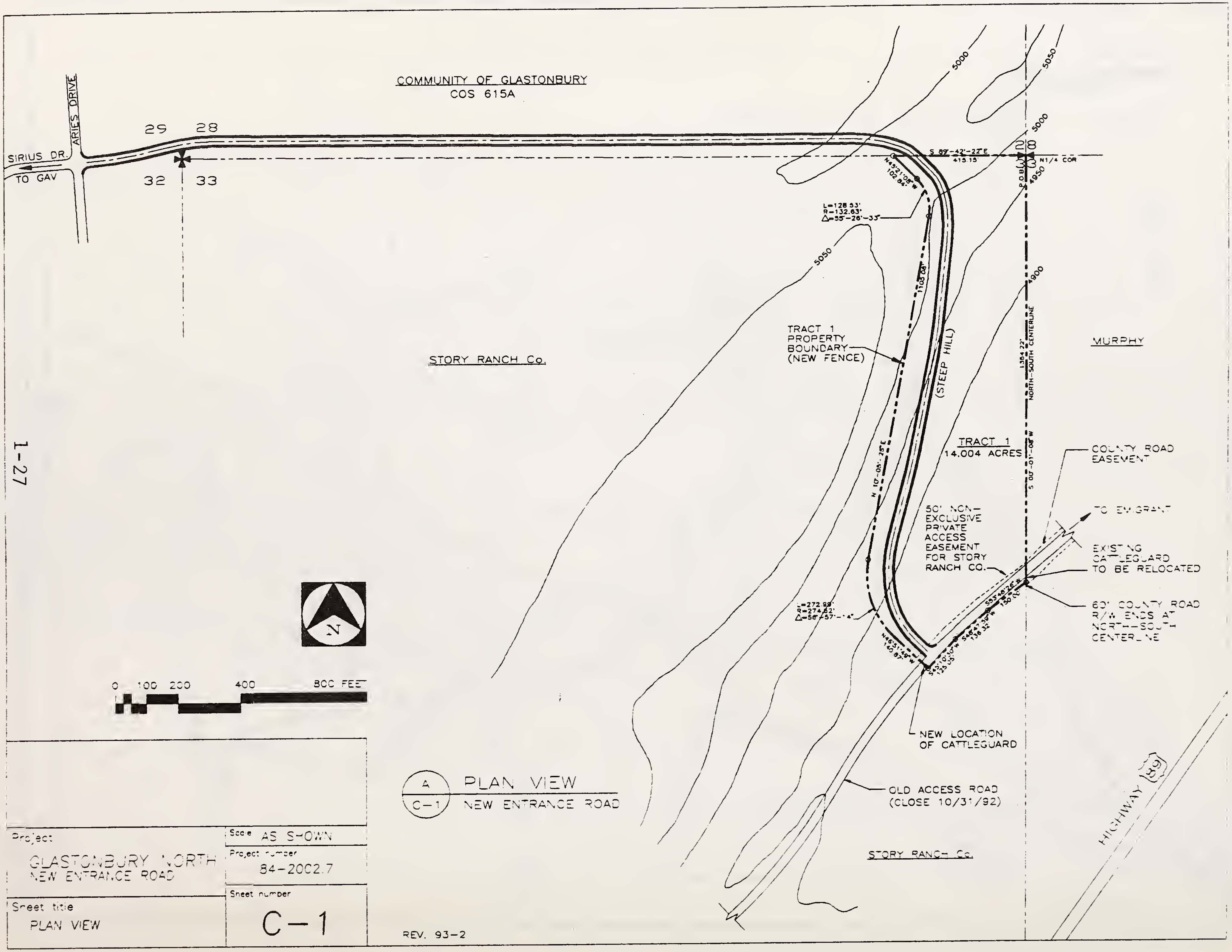
MAP 1-9


COMMUNITY OF GLASTONBURY
REV. 93-2
0 1/4 1/2 1 MILE 2 MILES
N
TO LIVINGSTON
TO GARDINER
GLASTONBURY NORTH
GLASTONBURY SOUTH
RESERVED LAND
GOLDEN AGE VILLAGE PHASE I
GOLDEN AGE VILLAGE PHASE II
EMIGRANT
WAN-I-GAN
US HWY 89
YELLOWSTONE RIVER
North Fork
Miller Cr.
Fridley Cr.
Golmeyer Cr.
Dry Cr.
Cr.
COMMON
COMMON
22
21
20
19
24
23
22
21
27
28
29
30
25
26
27
28
34
33
32
31
36
35
34
33
3
4
5
6
1
12
13
14
15
10
4
9
10
9
8
7
16

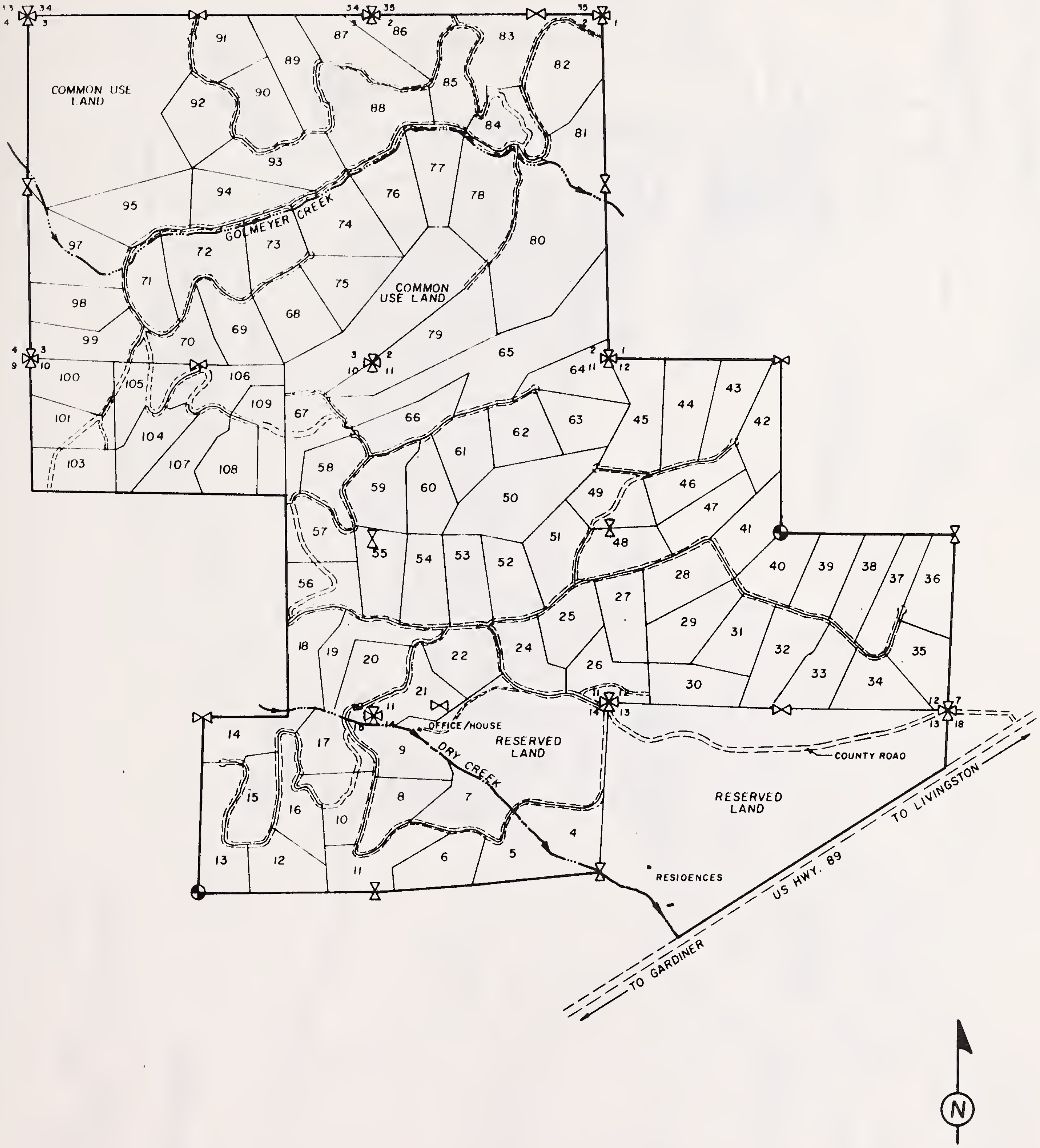
MAP 1-10


COMMUNITY OF GLASTONBURY — NORTH
SCALE IN FEET
0
500
1000
2000
REV. 93 - 2
N
MAIN ACCESS ROAD
TO LIVINGSTON
PARK BRANCH CANAL
US HWY. 89
TO GARDINER
TO EMIGRANT
EMIGRANT
NEW ENTRANCE ROAD
FORMER ENTRANCE (CLOSED)
GOLDEN AGE VILLAGE REFER TO MAP 12
RESERVED LAND
RESERVOIR
50A
51
52
53
55
56
58
59
64
65
70
49A
48
46
45
44
42
54
41
57
40
61
60
63
62
66
37
67
69
68
47
43
23
22
24
25
26
39
38
27
36
35
34
33
32
12
28
11
29
30
31
10
9
8
2
1
5
6
7
21
22
27
28
20
21
28
29
19
20
29
30
28
33
29
32
29
32
30
31

MAP 1-10A


COMMUNITY OF GLASTONBURY
COS 615A
ARIES DRIVE
SIRIUS DR.
TO GAV
29
28
32
33
5000
5050
5000
5050
4950
4900
S 89°-42'-22"E
415.15'
28
33
N1/4 COR
P.O.B.
N45°21'08"W
102.84'
L=128.53'
R=132.63'
Δ=55°-26'-33"
1103.08'
TRACT 1
PROPERTY
BOUNDARY
(NEW FENCE)
(STEEP HILL)
1384.22'
NORTH-SOUTH CENTERLINE
S 00°-01'-08"W
MURPHY
STORY RANCH Co.
TRACT 1
14.004 ACRES
N 10°-08'-25"E
COUNTY ROAD
EASEMENT
TO EMIGRANT
50' NON-
EXCLUSIVE
PRIVATE
ACCESS
EASEMENT
FOR STORY
RANCH CO.
EXISTING
CATTLEGUARD
TO BE RELOCATED
60' COUNTY ROAD
R/W ENDS AT
NORTH-SOUTH
CENTERLINE
L=272.99'
R=274.62'
Δ=56°-57'-14"
N46°31'49"W
140.87'
S43°10'30"W
125.05'
S46°47'59"W
136.32'
S53°48'26"W
150.00'
NEW LOCATION
OF CATTLEGUARD
OLD ACCESS ROAD
(CLOSE 10/31/92)
STORY RANCH Co.
HIGHWAY 89
N
0 100 200 400 800 FEET
A
C-1
PLAN VIEW
NEW ENTRANCE ROAD
Project
GLASTONBURY NORTH
NEW ENTRANCE ROAD
Scale AS SHOWN
Project number
84-2002.7
Sheet title
PLAN VIEW
Sheet number
C-1
REV. 93-2

MAP 1-11

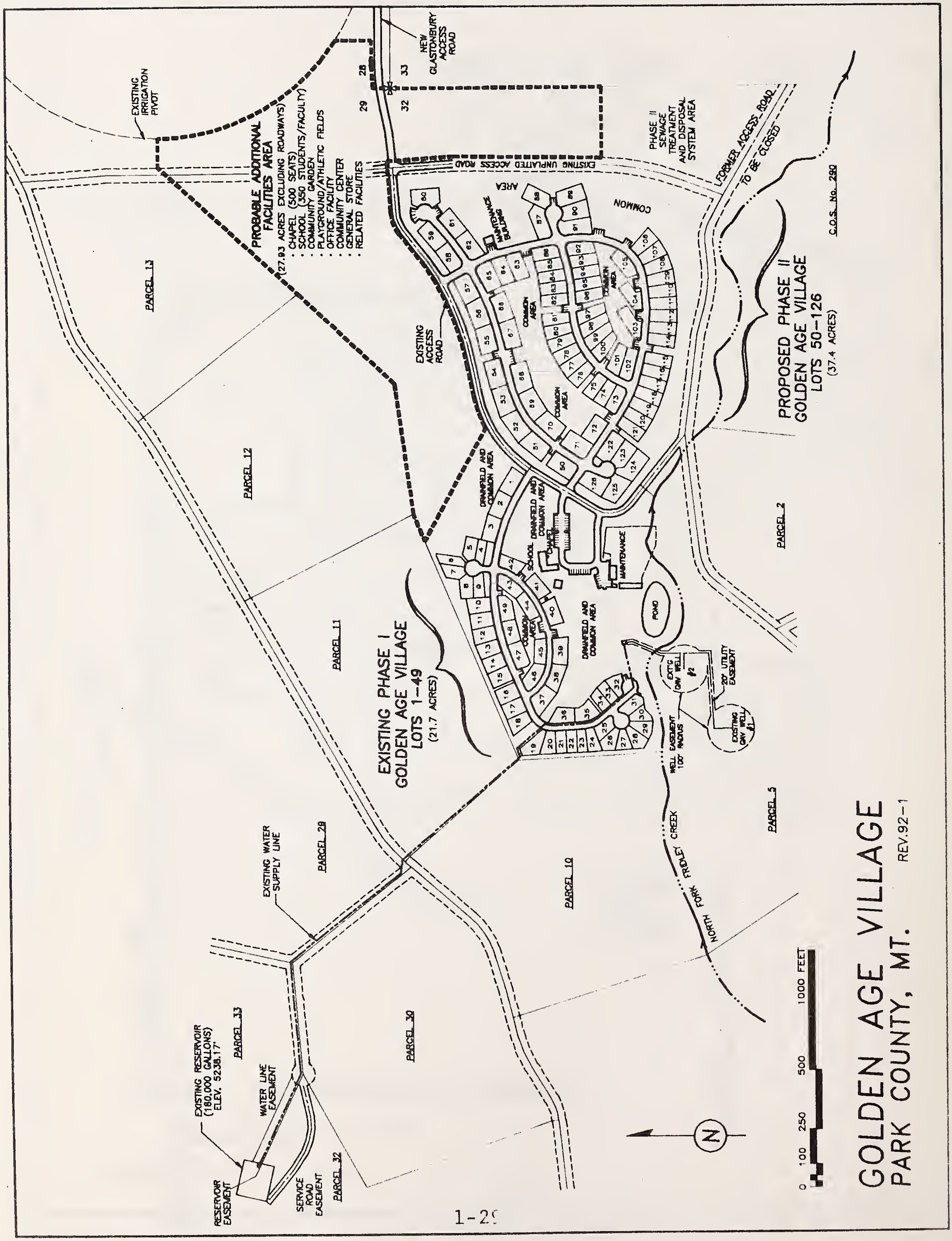


COMMUNITY OF GLASTONBURY — SOUTH

SCALE IN FEET 0 1000 2000

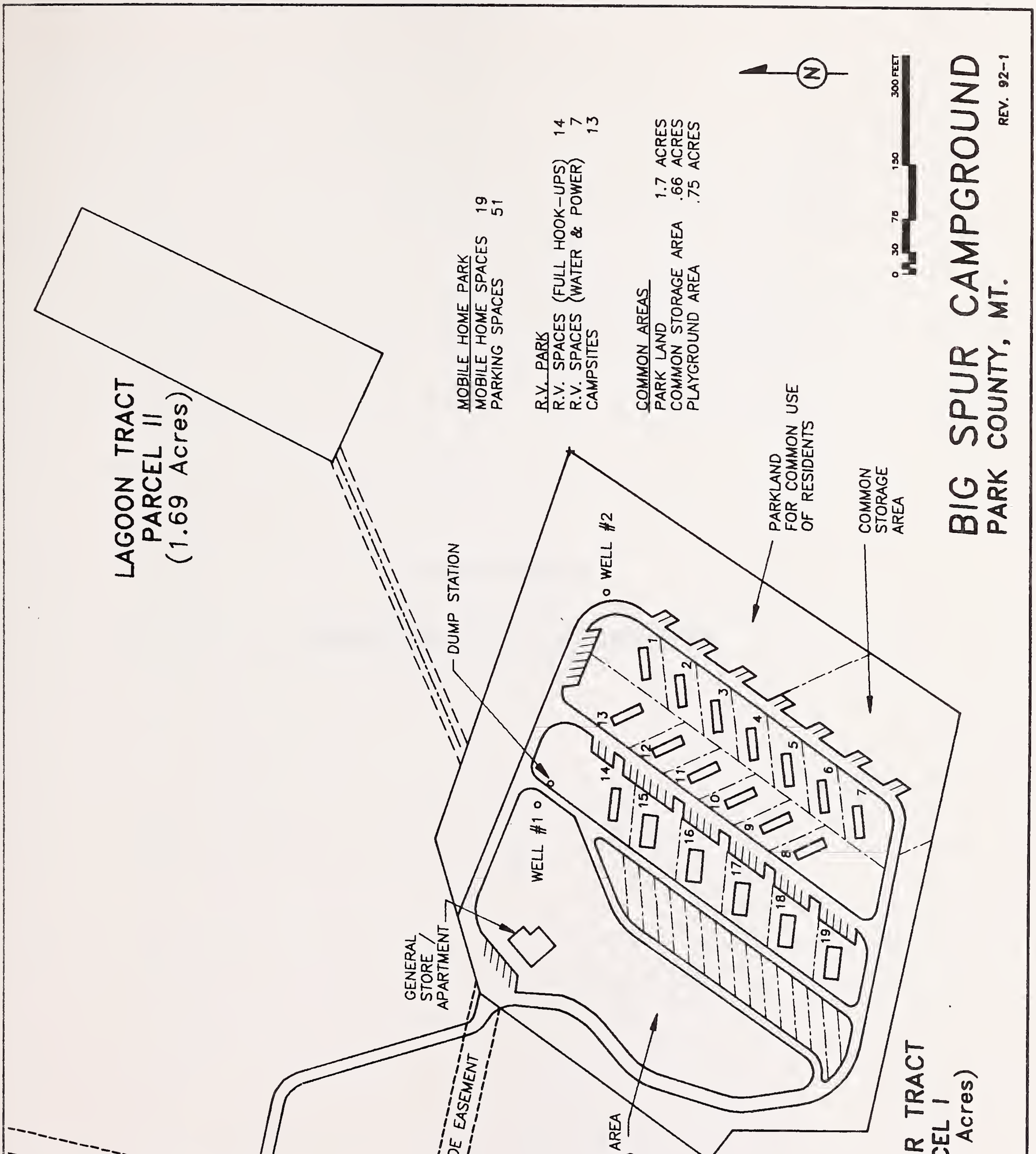
REV. 92-1

MAP 1-12


NEW GLASTONBURY ACCESS ROAD
EXISTING IRRIGATION PIVOT
PROBABLE ADDITIONAL FACILITIES AREA
(27.93 ACRES EXCLUDING ROADWAYS)
· CHAPEL (500 SEATS)
· SCHOOL (350 STUDENTS/FACULTY)
· COMMUNITY GARDEN
· PLAYGROUND/ATHLETIC FIELDS
· OFFICE FACILITY
· COMMUNITY CENTER
· GENERAL STORE
· RELATED FACILITIES
28
29
33
32
PHASE II SEWAGE TREATMENT AND DISPOSAL SYSTEM AREA
EXISTING UNPLATTED ACCESS ROAD
FORMER ACCESS ROAD TO BE CLOSED
C.O.S. No. 290
MAINTENANCE BUILDING
COMMON AREA
EXISTING ACCESS ROAD
PROPOSED PHASE II GOLDEN AGE VILLAGE LOTS 50–126 (37.4 ACRES)
DRAINFIELD AND COMMON AREA
SCHOOL
CHAPEL
MAINTENANCE
POND
EXISTING PHASE I GOLDEN AGE VILLAGE LOTS 1–49 (21.7 ACRES)
EXT'G GW WELL #2
20' UTILITY EASEMENT
EXISTING GW WELL #1
WELL EASEMENT 100' RADIUS
NORTH FORK FRIDLEY CREEK
PARCEL 13
PARCEL 12
PARCEL 11
PARCEL 29
PARCEL 10
PARCEL 2
PARCEL 5
PARCEL 30
PARCEL 33
PARCEL 32
EXISTING WATER SUPPLY LINE
EXISTING RESERVOIR (180,000 GALLONS) ELEV. 5238.17'
WATER LINE EASEMENT
RESERVOIR EASEMENT
SERVICE ROAD EASEMENT
N
0 100 250 500 1000 FEET

GOLDEN AGE VILLAGE
PARK COUNTY, MT.
REV.92-1

MAP 1-13



BIG SPUR CAMPGROUND
PARK COUNTY, MT.

CHAPTER 2

SUBSTANTIVE COMMENTS

2.0 CHAPTER 2 - SUBSTANTIVE COMMENTS

The Montana Environmental Policy Act (MEPA) requires the DHES to consider substantive comments or comments that pertain specifically to issues, as opposed to persons indicating whether or not they like a proposed development. Simply voicing personal opinions for or against an EIS does not substantively add to the base of knowledge.

Testimony from the public hearings and letters are reviewed several times by department personnel and the consultant to identify substantive comments. Some comments are similar, but stated differently from author to author.

There are also "points of contention." These are based more on how people feel or think rather than on facts.

The following substantive comments were those most often posed and are followed by the DHES' answers.

2.1 Comment - MEPA's Role:

Why doesn't the MEPA process solve all the problems raised by persons and groups? Also, why can't MEPA be used to require the Church to consider a variety of sites for its proposed developments?

Response:

It is difficult to talk about MEPA without ultimately talking about Montana's Constitution. Although MEPA was created in 1971 and the new constitution ratified in 1972, they share the common themes of maintaining and improving the state's environment.

Article IX of the constitution addresses the environment and natural resources. The idea that the state shall maintain and improve a clean and healthful environment for present and future generations is well remembered and often quoted. However, the actual wording of that section implies much more. Section 1 of Article IX says:

Section 1. Protection and Improvement:

> (1) The state and each person shall maintain and improve a clean and healthful environment in Montana for present and future generations.
>
> (2) The legislature shall provide for the administration and enforcement of this duty.
>
> (3) The legislature shall provide adequate remedies for the protection of the environmental life support system from degradation and provide

adequate remedies to prevent unreasonable depletion and degradation of natural resources.

Montana's Constitution makes it incumbent on the people, state government and legislature to work in partnership to meet its aims. The role of the legislature is particularly important since it is charged with creating the laws administered by the DHES and other state agencies.

Although patterned after the National Environmental Policy Act (NEPA), MEPA is a law unto itself designed to meet the needs of Montana. The Environmental Quality Council (EQC) was created by the act and given the responsibility of coordinating and monitoring state policies and activities that affect the quality of the human environment. According to the EQC, MEPA has two main objectives:

1. Consider the environmental and human aspects of a state agency's proposed action, and

2. Ensure the public is informed and participates in the decision-making process.

To accomplish the objectives, an agency needs to: (1) Ensure other agencies and the public are aware a development has been proposed, (2) to the fullest extent possible, create a broad-based body of knowledge about the existing environment and possible impacts, and (3) promote public participation. All the elements are collectively aimed at giving those responsible for making decisions the best information possible before they act.

The process fosters better decisions and wiser actions by ensuring relevant environmental information is available before decisions are made and actions taken, according to the EQC.

Although it is important to know what MEPA can do, it is equally important to know what it can't do.

1. MEPA does not guarantee problems associated with proposed developments will be solved to the satisfaction of all those involved. It is a tool, not a solution.

2. MEPA is not a siting act.

3. MEPA is not a research project.

The EIS process does not guarantee potential problems will be solved to the satisfaction of all parties. Since people, not information, solve problems, it is possible to completely go through the process and not solve a single problem. However, the environmental review does provide an opportunity to begin solving problems. The ultimate goal for a state agency is to make the best decision or decisions possible and provide a complete record of the agency's decision-making process.

The 1988 MEPA agency rules include the consideration of mitigating possible impacts. The DEIS and FEIS were written using the former rules which did not require mitigation to be considered. The mitigation agreement created for the first environmental review was the result of a voluntary agreement between the DHES and the Church.

The current MEPA administrative rules ask agencies to provide "...a discussion of mitigation, stipulations, or other controls committed to and enforceable by the agency or other government agency;...."

Some state laws and regulations specifically mention mitigation and provide agencies the authority to take definite steps to lessen impacts. If mitigating measures are outside the legal purview of the agency preparing the MEPA review, mitigation can be discussed, but the ability to require enforceable measures is vested within the express legal authority of the appropriate agency. There are also instances in which mitigation is possible but does not fall within the scope of any government laws or regulations. In these situations applicants have the discretion to decide whether or not to employ mitigating measures.

MEPA is not a siting act. The regulations require state agencies to consider "reasonable" alternatives. Depending on one's perspective, what is reasonable varies widely. The rules say agencies are required to consider "...only alternatives that are realistic, technologically available, and that represent a course of action that bears a logical relationship to the proposal being evaluated." (ARM 16.2.625 [2] [b]) The rules also state agencies shall discuss "...reasonable alternatives of no action and other reasonable alternatives that may or may not be within the jurisdiction of the agency, if any...." (ARM 16.2.632 [5])

The FSEIS includes comments from reviewers suggesting alternative sites be considered for the Mol Heron shelters and the proposed Spring Creek headquarters. The Church, exercising its right to respond to public comments, addressed the suggestions.

Any discussion of siting ultimately must consider who has the legal authority to approve the placement of a proposed development. The state does have some specific siting authority under the Major Facility Siting Act administered by the DNRC. The state also would have the authority to site a proposed development on state land.

The federal government has the ability to control the placement of proposed developments on its land.

Montana's legislature has given local government the authority to implement land use planning on private property. The means are available for citizens to institute land use planning, or de facto siting, if the majority chooses to do so. In the absence of local land use planning or local laws, private property owners can develop their land any way they choose.

MEPA and its administrative rules do not require agencies to undertake extensive research projects to generate scientific information. Some efforts to gather the most up-to-date data may be more extensive than others, but this generally depends on the issue and the amount of substantive information available on the subject.

2.2 Comment - State's Original Lawsuit:

The state should have continued its lawsuit against the Church and not entered into the Partial Consent Decree.

Response:

From the DHES' perspective, the Partial Consent Decree with the Church was a fair settlement to a long legal dispute over proposed developments in Park County. The negotiations were carried out in good faith and sanctioned by the district court. Included in the decree were funds to begin the supplemental review of the proposed projects and the Church's agreement to pay fines and costs accrued by the department.

The DHES continues to support the Partial Consent Decree.

2.3 Comment - Cumulative Effects Modeling for Grizzly Bear:

The DSEIS should have utilized Cumulative Effects Modeling for grizzly bear and was mistaken in suggesting that direct effects would be negligible.

Response:

MEPA (Section IV) requires an assessment of the "significance of impact" and suggests criteria for that determination. There is no direction to elaborate the discussion once that assessment has been made. The DSEIS states that "...The cumulative effects of Church activities will significantly add to the problems associated with the Gardiner area population 'sink'..." (see Section 4.2.1.6). The DHES' wildlife consultants, Bio Systems Analysis (BioSystems), believe that use of Cumulative Effects Methodology would have resulted in the same conclusion. If BioSystems had stated that cumulative effects were *not* potentially significant, the methodology might be appropriate as a cross-check on the impact analysis process. Cumulative effects modeling might also be useful during the preparation of a multiple species conservation plan, where it can help to prescribe mitigation measures.

BioSystems did not state that direct effects would be negligible. It acknowledged that the upper Mol Heron drainage lies within Management Situation 1 (MS1) grizzly habitat, i. e., areas considered most important for the recovery of the species. For example, Section 4.2.1.4 of the DSEIS predicted a significant reduction of wildlife diversity and productivity on the 100 acres of the Mol Heron Shelter Site. Within the DSEIS's frame of reference, the geographic scope for primary effects was defined as the proposed projects' area of disturbance. In this context, and relative to available habitat elsewhere, BioSystems did not consider the direct impact significant. Indirect impacts can be considered to be reduced effectiveness of habitat utilization throughout the upper drainage as a result of the shelter site and the yearly conference. This occurs because of an unfortunate "Catch 22" in bear ecology: displaced bears are denied habitat; habituated bears are public enemies.

2.4 Comment - Travel Corridor for Wolverines vs. Area of Residency:

The DSEIS suggested that the project area was only a travel corridor for wolverines and should have considered it an area of residency.

Response:

BioSystems accepted that use of the area as a travel corridor implies a possible residency by this species. Given the wolverine's large home range (up to 150 square miles), low population densities, and habitat requirements, it is more probable that impacts would affect movement of the animal rather than a residency area.

2.5 Comment - State/Federal Bison Management Plan:

How does the State/Federal Bison Management Plan interact with the proposed developments?

Response:

As stated in Section 4.2.1.6, it is currently uncertain what direction future bison management will take, and that direction will determine impacts to a large degree. It seems probable that state and federal agencies will take the responsibility to restrict bison movement outside Yellowstone National Park (YNP). The presence of fences or structures or other impediments to movement might make bison management more logistically complex, but the central force determining the future of the bison will be the management strategy and not the Church's proposed activities.

2.6 Comment - Pronghorn and the Endangered Species Act:

It is highly speculative to make the contention that the area's pronghorn are genetically unique, or that they may be considered for protection as a "unique threatened population" under the Endangered Species Act.

Response:

Where valid professional opinion, and some experimental evidence, point to a potential impact, it is incumbent upon the EIS to assume that a problem could occur, especially when the analysis is not comprehensive. MEPA (Section IV) requires that determination of impacts deal with the "probability" of an impact, not as certainty.

Moreover, the EIS process is inherently speculative. Exhaustive research into a question is often not appropriate or possible. MEPA (Section IX) states that data analysis must be commensurate with the importance of the impact. In this case, for the pronghorn, the DSEIS predicts only "reduction of habitat effectiveness" at the cumulative effects level (Section 4.2.1.6).

2.7 Comment - Spring Creek Area as Ungulate Winter Range:

Did the DSEIS adequately consider the value of the Spring Creek area as ungulate winter range?

Response:

The DSEIS acknowledged heavy use of this area by ungulates, as well as its location at a construction in the Yellowstone River Valley. Assuming a state of development at full "build-out", with no mitigation measures, the DSEIS predicts a virtual elimination of the value of the area as winter range. It should be noted, however, that the "Denial" alternative may decentralize growth in the vicinity, and that scattered small cottage industries or single family dwellings could have the same effect.

2.8 Domestic Sheep

The following comments were raised regarding domestic sheep grazing.

2.8.1 Comment - Grazing Restrictions:

All domestic sheep grazing should be restricted to lands north of Yankee Jim Canyon. This would minimize the potential for grizzly predation and, therefore, conflicts with the management of the Church's livestock.

Response:

While such a mitigation might reduce the potential for grizzly predation, the sheep grazing program is not an "impact" of the proposed action and as such is still covered by the Mitigation Plan Agreement.

2.8.2 Comment - Exclusion Zone:

The applicant has not complied with the agreement to confine sheep to the area north of Mol Heron Creek. The Department and the contractor working on the DSEIS were informed in July 1992 that the applicant did, in fact, have sheep in the exclusion zone.

Response:

The Mitigation Plan Agreement dated February 16, 1989, stated that the Church would not allow its domestic sheep to use the area in "those portions of Sections 24 and 25, Township 8 South, Range 7 East, bounded on the north and west by the Mol Heron Creek **County Road**" (emphasis added). Mol Heron Creek lies to the north of the road in Section 24. Under the terms of the agreement, sheep could graze south of the creek as long as they are north of the Mol Heron Creek County Road.

BioSystems contacted the U.S. Forest Service (USFS) office in Gardiner and the DFWP regarding the notification of domestic sheep in the restricted area. The report was not confirmed by either entity. The DFWP representative in Livingston indicated he flies over the area and has never observed violations of the agreement.

The Mitigation Plan agreement on the domestic sheep involved a land exchange proposal and lease agreement with the DFWP. The land exchange proposal submitted by the Church to the Forest Service is under consideration. (Gardiner, pers.comm. 5 May 1993) No action has been taken to arrange a lease with the DFWP. (Lemke, pers.comm. 5 May 1993)

2.8.3 Comment - Impacts to Cinnabar Mountain Big Horn Sheep:

What are the cumulative impacts to the Cinnabar Mountain Big Horn Sheep herd as a result of domestic sheep grazing?

Response:

As long as the Church continues to have domestic sheep in the Trestle Ranch area, there would remain a possibility for transmission of domestic sheep disease to the wild herd. This would be true even if a lease arrangement were finalized with the DFWP since the restricted area proposed for leasing is immediately south of the Trestle Ranch domestic herd grazing area. (Lemke, pers. comm. 5 May 1993)

2.9 Comment - Jackleg Fence:

The jackleg fence should be included as a component of cumulative impact analysis.

Response:

The fence is discussed in the cumulative effects section (4.2.1.6). The analysis acknowledged the concerns of YNP scientists and their supporting data. The intent of the DSEIS was not, however, to compare effects with pristine conditions in the area, but with the effects of other types of fencing that would exist, or had existed, in the same place under other private ownership.

2.10 Comment - Multiple Species Wildlife Conservation Plan:

A comprehensive multiple species wildlife conservation plan should be mandated and initiated immediately to outline mitigation for impacts to wildlife resources from the proposed and future developments on Church lands in Park County.

Response:

Since there is no determination of a "taking" within the context of the Endangered Species Act, a habitat conservation plan or multiple species conservation plan would not be required by the USFWS. The recommendation of the DHES is that a multiple species conservation plan could be initiated directly and voluntarily by the land owners and land managers within the Yellowstone Ecosystem.

2.11 Geothermal Concerns

2.11.1 Comment - Update Proposed Legislation:

Update the discussion of proposed geothermal legislation.

Response:

The federal legislation considered by the United States Senate and described in the DSEIS was never passed. A geothermal bill was reintroduced in the House of Representatives by Congressman Pat Williams in 1993. The House Natural Resource Committee is examining the proposed legislation in light of a recent compact agreement intended to, among other items, address geothermal resources near YNP (Rich, pers. comm. 10 May 1993).

The State of Montana (represented by the Reserved Water Rights Compact Commission) and the United States Government (represented by National Park Service and Department of Justice) entered into a compact agreement in 1993. The compact is an agreement to settle reserved water rights for Yellowstone and Glacier National Parks and the Big Hole Battlefield National Monument. The compact is now state law, signed by Governor Racicot on May 12, 1993. Under the compact a system of regulations is set up and administered by the Montana Department of Natural Resources and Conservation (DNRC).

One of the provisions of the compact addresses the impact of ground water development adjacent to Yellowstone Park on the hydrothermal system in the park. As part of the compact agreement, the Montana Bureau of Mines and Geology will inventory all the existing cold and hot water wells in a controlled ground water area around Yellowstone Park in Montana. As of January 1, 1993, anyone drilling a well in the controlled ground water area will be required to apply for a permit before drilling begins. Wells with a priority date established before January 1, 1993 would not require additional permitting. The inventory to be collected by the Montana Bureau of Mines and Geology will include a data base of well locations, water level, pump level, water temperature, specific conductance, well heads, and chemical analyses. The rules of the compact agreement would only apply to LaDuke Hot Spring if changes were made to enhance the natural flow. Diversion without such enhancement is not regulated by the compact agreement. The inventory will take place over a three year period once federal funding is secured. The data base would be used to track changes in the geothermal resource in and around Yellowstone Park. The DNRC retains the right to modify permits issued after January 1, 1993 if additional information indicates an impact to the geothermal resource. If it is determined that a well with a priority date before January 1, 1993 is causing a problem in geothermal resources in Yellowstone Park, the federal government retains the right to litigate. (Cosens, pers. comm. 6 May 1993)

2.11.2 Comment - Impacts of Development:

The DSEIS avoids analyzing the potential impacts of geothermal development. Potential geothermal impacts should be thoroughly discussed.

Response:

Existing and potential geothermal use were addressed in the DSEIS. Until the Church submits a formal proposal for its plans to use the geothermal resource (at either LaDuke Hot Spring or the geothermal well), any additional analysis would be speculative, based upon guesses about what the Church might do.

The Church continues to pursue its option to convey water from LaDuke Hot Spring to its property on the west side of the Yellowstone River. Two engineering reports were completed for the Church in September 1992 and submitted to DHES in March of 1993. These reports identify and evaluate five pipeline alternatives and identify the floodplain conditions in relation to the proposed pipeline crossing.

As stated in the DSEIS, permits required by the State of Montana for use of the geothermal resource from either LaDuke Hot Spring (and conveyed to the west bank of the Yellowstone River) or from a geothermal well would trigger review of the specific proposed action under MEPA. A NEPA review could also be triggered if geothermal water were formally proposed to be conveyed across the Yellowstone River. It is up to the federal government to decide at what point an action would require NEPA analysis. Review of a specific proposal under MEPA or NEPA would include more detailed analysis and a thorough review of existing literature and divergent viewpoints.

2.11.3 Comment - Violation of Mitigation Agreement:

The Church violated the Mitigation Agreement when it pumped the geothermal well in June of 1992. Why wasn't more done by the State when this occurred? What if the Church drilled additional geothermal wells, as Edward Francis suggested (page 3-7 of the DSEIS)?

Response:

The DHES responded to news of the geothermal pumping with a prompt notice from Dennis Iverson, former DHES Director, to Edward Francis indicating that the Church was in violation of the mitigation agreement and should not pump any additional water from the geothermal well. The Church responded by suspending the withdrawal of water from the well, but indicated it was not intending to abandon its water rights. Francis also pointed out that the Mitigation Agreement did not restrict the Church from drilling additional geothermal wells. Since that time there has been no further pumping of the well and the Church has not drilled any additional geothermal wells.

Since the purpose of the Mitigation Agreement clause on geothermal developed was established to essentially put a moratorium on geothermal well development that would "..tap the aquifer serving LaDuke Hot Spring," drilling additional wells could be construed to be in violation of that agreement. If additional geothermal wells were drilled they would be examined in light of the intent of the existing mitigation agreement. Since no additional wells have been drilled, this examination has not been necessary.

The proposed mitigation measure for the geothermal resource identified in the DSEIS on p.2-3, would allow the Church the right to use the existing geothermal well under the terms and conditions of the Certificate of Water Right issued by DNRC. The water right for the geothermal well was established when the Church pumped the well in June 1992 and filed its notice of completion. Since these rights have now been recognized by DNRC, the State agency responsible for water rights, they cannot be taken away or modified by DHES under this FSEIS. The water rights entitle the Church to pump water at a rate less than 35 gallons per minute (gpm). Use of the well at amounts greater than 35 gpm would require a permit from DNRC and could trigger MEPA analysis.

Under the new compact agreement between the State of Montana and the U.S. Government, all cold and hot water wells within the defined controlled ground water area will be inventoried and monitored to assess potential impacts on the geothermal resource. Wells with a priority date after January 1, 1993 will require a permit from DNRC regardless of the amount of water withdrawn from the well. Such permits can be modified at any time by DNRC to reflect new information on impacts to the geothermal resource. The state has less control over permits for wells with a priority date issued before January 1, 1993, but these wells will also be included in the inventory and could be subject to federal litigation if impacts warrant.

The Church has 14 wells with a priority date before January 1, 1993, two additional wells with a pre-January 1, 1993 priority date pending, and 14 wells with a post-January 1, 1993 priority date.

2.11.4 Comment - Warm Water Effects on Fish Populations in the Yellowstone River:

If the amount of warm water presently being discharged by the LaDuke Hot Spring is reduced, will there be an effect on fish populations in the Yellowstone River.

Response:

The impacts of reducing warm water flow to the aquatic ecosystem in the Yellowstone River was considered out of the scope of this SEIS because no specific proposal has been made to use the geothermal resource. When the Church does submit a proposal (in the form of a permit application to DNRC), the environmental impacts to the aquatic ecosystem will be considered and analyzed as part of MEPA review. An initial analysis of potential impacts was part of a report prepared by Morrison-Maierle/CSSA (1992) for the Church to examine possible alternatives to convey water from LaDuke Hot Spring to the west side of the Yellowstone River. Additional analysis would be part of MEPA review of a specific proposal.

2.12 Sedimentation/Erosion Control Concerns

2.12.1 Comment - Construction Effects:

The Universal Soil Loss Equation (USLE) estimates annual soil loss; a heavy storm during construction activities could produce much more severe soil erosion.

Response:

It is true that the USLE only calculates erosion based on average annual rainfall intensity. However, this does not mean that intense events have been ignored; the rainfall intensity factor is based on a long term average condition which includes the appropriate frequency of intense storms. The average soil losses in Table 4-1 of the DSEIS therefore include the appropriate frequency of these intense events. It is, of course, possible that more adverse conditions than average could occur in some periods.

2.12.2 Comment - Calculated Sediment Yields at the Mol Heron Shelter Site:

The SEIS should include calculated sediment yields for the septic tanks and associated site work for the Mol Heron Shelter site.

Response:

The 0.3 acres of disturbance for installation of underground tanks is the only proposed action in Mol Heron Creek before the DHES at this time (Section 1.4.1.1 of the DSEIS). The addition of septic tanks in the future and other potential impacts in the Mol Heron drainage are addressed qualitatively under cumulative effects in Section 4.2.3.5 of the DSEIS. At the present time insufficient information is available to determine quantitative impacts from these future actions.

2.12.3 Comment - Total Disturbed Acreage for the Spring Creek Site:

On page 4-22 of the DSEIS the total disturbed acreage for the Spring Creek site is 93 acres; on page 4-42 of the DSEIS the acreage is given as 109 acres with potential for greater impacts with permit modification. Please clarify. Does the sediment yield calculation take into account that additional construction is expected to occur over a number of years?

Response:

The 93 acres of disturbance for the Spring Creek development is based on the most recent information supplied by the Church. The 109 acres and the reference to permit modifications and additional construction is taken from the Final EIS of 1989 which is not as current. The sediment calculation is based on the most current acreage for the proposed action available to us; no estimate of sediment yield due to future actions of unknown magnitude has been attempted.

2.12.4 Comment - Cumulative Affects of Erosion:

The cumulative effects discussion beginning on page 4-29 ignores the effects of other development on potential sediment yield.

Response:

The cumulative effects of erosion are addressed in the DSEIS, Section 4.2.3.8 - Effects on the Yellowstone River. Although the cumulative effects of erosion have not been quantified, it is stated that the Yellowstone River would experience increased sedimentation during construction due to the proposed activities. This statement could be extended to include all ongoing construction activities in the Paradise Valley.

2.12.5 Comment - Erosion Control:

Some parties maintain that straw bales are inadequate as erosion control Best Management Practices; others, such as the Church, state that they have had good success with straw bales and do not need additional measures.

Response:

Erosion controls in addition to straw bales such as erosion control mats, mulch, silt fences, channel controls, and other best management practices should be implemented as needed. Straw bales are generally most effective in swales; erosion mats, mulch, and silt fences should be used where sheet erosion may be a problem; channel controls may be needed if large water volumes are expected. Unless large point source discharges are proposed, it is unlikely that large structures such as sediment basins will be required. The erosion controls which will be employed during construction of the Spring Creek Village will be detailed in the Storm Water Discharge Permit which the Church must obtain before beginning construction on any area greater than 5 acres.

2.13 Mol Heron Shelter

The following questions pertain to the Mol Heron Shelter and considerations associated with the shelter.

2.13.1 Comment - Public vs. Private Water and Wastewater Systems:

Why are the water and wastewater systems considered private and not public?

Response:

The DSEIS (3.2.2.2 Mol Heron Shelter Complex, Shelter Water and Sewer - Page 3-14), mentioned a provision of the Partial Consent Decree in which the Church agreed not to use any of the individual shelter water supply and sewage systems for more than nine families or 24 persons daily for more than 59 days in a calendar year. Based on the occupancy limits, the DHES agreed the proposed systems would be private, not public, and should be reviewed by Park County.

2.13.2 Comment - LP Tanks:

Are the eight, 30,000 gallon liquid propane (LP) tanks still in place? Are they buried?

Response:

On December 8, 1989, Jack Sousa, State Fire Marshal Bureau, and Bob Fry, Park County Disaster and Emergency Services (DES) coordinator, inspected the installation of LP tanks at the shelter site. The bureau is responsible for insuring that LP tanks are properly installed, above and below ground. Sousa's subsequent letters indicate he was satisfied with the installation and precautions being taken by the Church (Reference the letter from James E. Cherry, fire chief of the Royal Teton Ranch Fire Department, and enclosures, Pages 3-245 and 3-246).

2.13.3 Comment - Review of Water and Wastewater Plans:

Park County does not have the expertise to review the plans and specifications associated with the proposed water and wastewater systems for the Mol Heron Shelter complex. Will the DHES help the county review the plans?

Response:

County Commission Chairman Carlo Cieri and Park County Sanitarian Randy Taylor wrote a letter to the DHES February 19, 1993, asking that the department help the county review water and wastewater plans and specification for the Church's shelter complex.

Environmental Sciences Division Administrator Steve Pilcher replied on March 2, 1993, by saying:

> ...I forwarded your recent letter asking for assistance in reviewing proposed plans by the Church Universal and Triumphant to Dan Fraser, chief of the Water Quality Bureau, for his consideration. Dan responded by saying the Bureau would be glad to help to the best of its abilities, considering time and resources...."

2.13.4 Comment - Removal of FRAC Tanks:

When will the fracture (FRAC) tanks at the Ranch Headquarters be removed?

Response:

On March 10, 1993, Edward Francis wrote to the DHES saying he was updating several issues, including the removal of FRAC tanks. He said:

Ten of the 14 FRAC tanks have been removed and returned to the owner. Four FRAC tanks remain at the Ranch Headquarters with diesel fuel stored in them in accordance with the prior approval of the State Fire Marshall.

2.14 Comment - Mol Heron Creek Water Quality Monitoring:

Certain parties have requested that a water quality monitoring program be implemented on Mol Heron Creek because of the potential for water quality to be degraded in this stream.

Response:

The Department will require a monitoring program on Mol Heron Creek as a mitigation measure as part of the FSEIS. The Department is currently evaluating the stream for an appropriate sampling strategy and will require that the Church fund a program and cooperate with other appropriate state agencies.

2.15 Comment - East Gate Village Aquifer and the Yellowstone River:

There is insufficient information to determine if the uppermost aquifer under the East Gate Village is connected to the Yellowstone River.

Response:

The DSEIS did not make a definitive statement on possible connection of an uppermost aquifer to the Yellowstone River at East Gate Work Camp because there are no wells in this area that would provide this information. The lack of wells in the uppermost aquifer in this area also controverts the possible effects on domestic water supply in this area. The remaining potential effects of nutrient loads on the Yellowstone River are discussed in section 4.2.3.3 of the DSEIS where it is assumed that the uppermost aquifer is connected to the Yellowstone River. These loads were shown to be insufficient to cause an appreciable increase in nutrient concentration from either a public health or a biomass standpoint as discussed in Section 4.2.3.2. However, ground water in the vicinity of the drainfield will be monitored under the terms of the Mitigation Plan Agreement dated February 16, 1989. The ground water monitoring wells should provide information on the connection between the uppermost aquifer and the Yellowstone River as well as any potential nitrate loading to the aquifer.

2.16 Golden Age Village Ground Water Concerns

2.16.1 Comment - Contamination by the Proposed Sewage Treatment System:

Landowners have expressed a concern that wells, springs and surface water will be contaminated by the sewage treatment system proposed for Golden Age Village.

Response:

As explained on Page 4-33 of the DSEIS, Fridley Creek will not become contaminated due to the proposed sewage treatment system because the uppermost aquifer does not discharge to Fridley Creek. The department is concerned about the potential of the proposed system (Alternative 2) to contaminate ground water and therefore has recommended Alternative 3 which provides for either a treatment plant or a lagoon and a storage pond and the land application or total evaporation of treated effluent. This alternative will provide a higher degree of nitrate removal than the proposed alternative. In siting a lagoon, the Church will be required to follow the Ten States Standards which require lagoons to be at least one-quarter mile from a dwelling and a law passed by the last state legislative session which requires that lagoons be at least 500 feet from water supply wells.

The DHES can require additional hydrogeological information regarding the proposed increased withdrawal of water and possible impacts on ground water and area wells if the department's review indicates it is necessary.

2.16.2 Comment - Lagoon System:

The impacts of the Golden Age Village Sewer System on the Yellowstone River are shown to be insignificant in the DSEIS yet the department has recommended a lagoon system to decrease nutrient load entering the ground.

Response:

On page 4-33 of the DEIS (second paragraph under Alternative 2) it is stated that, with the proposed alternative, the uppermost aquifer could become contaminated and this is the basis for recommending the mitigation measure (lagoon or pond storage and land application of effluent), not effects on the Yellowstone River. Contamination of the uppermost aquifer could potentially contaminate springs and wells in the area.

2.16.3 Comment - Proposed Film Activated Sludge Treatment Process:

The proposed Film Activated Sludge Treatment process is superior to a lagoon system in removal of BOD and total suspended solids and the proposed infiltration trenches are not significantly less effective than conventional drain field trenches and will not permit the penetration of bacteria further than three feet below the bottom of the trenches.

Response:

The proposed action for Golden Age Village includes a Fixed -Film Activated Sludge Treatment process for sewage treatment and infiltration trenches for disposal of treated effluent. This system should provide good reduction of BOD and removal of total suspended solids, but it is unlikely that it reduces nitrate concentrations sufficiently to meet permitting requirements for direct discharge to surface waters. Although the use of infiltration trenches would not constitute a direct discharge, neither would it provide the degree of nitrate removal of a conventional drainfield or land application system. As noted by the respondent, bacterial penetration to ground water is not likely with the proposed system and nitrates are the main concern.

Drainfields and land application systems rely on relatively low application rates and maintenance of the effluent in the root zone to prevent downward migration of nutrients and are therefore relatively effective removers of nutrients. The higher application rates and deeper injection depth of the proposed infiltration trenches increases the likelihood of nutrients penetrating to ground water. For this reason a lagoon system or storage pond with land application of effluent was proposed as a mitigation measure.

2.17 Gardiner Sewage

2.17.1 Comment - Sewage Treatment Plant:

There is a great deal of concern about the Church's wastewater systems, but how about the condition of the Gardiner sewage treatment plant?

Response:

The sewage treatment facility at Gardiner serves both the town and the National Park Service's (NPS) facilities at Mammoth.

The wastewater collection and treatment system was constructed in 1972 with funds from the sale of Rural Special Improvement District bonds and the NPS. The system is owned, operated and maintained by the Park County Commission, which employs a part-time manager and operator.

In April 1988 the county commission hired a consultant to analyze the collection and treatment system. The action was prompted by several concerns. Since 1979, the lagoon had not discharged directly; all discharge was occurring through the pond dikes and bottom. The lagoon system was leaking up to 0.375 million gallons per day (MGD) through the bottom liner. At times, the second pond was nearly dry. Additionally, flows had been gradually increasing to a level which appeared to be exceeding the design capacity of the treatment system.

At the time of the survey the system was serving a population equivalent (PE) of 2,624 persons in the summer and 1,097 persons in the winter. Wastewater flows measured from April 1988 to February 1989 revealed summer flows (June-August) averaged 0.45 MGD and spring flows averaged 0.20 MGD. The per capita wastewater flows were estimated to be 125 gallons per capita per day (GPCD) for Gardiner and 285 GPCD for Mammoth. Flows from the NPS facilities comprised about 70% of the total flow in the summer and about 60% the remainder of the year. Based on the survey information, the consultant's 20-year population projections were for 3,498 PEs in the summer and 1,475 PEs in winter. The 20-year flow projections were 0.765 MGD in the summer and 0.258 MGD in the winter.

Five alternatives were considered, including a "no-action" alternative. The chosen recommendation included a rapid infiltration system, consisting of two aerated ponds and two polishing ponds, and 1.4 acres of rapid infiltration ponds for final treatment and disposal.

The infiltration ponds are used during frost-free times of the year (approximately April through October). When infiltration is not possible, water from the polishing ponds is discharged to the Yellowstone River. Additionally, when flows exceed the capacity of the infiltration ponds, the excess is discharged to the river.

The new system became operational last fall and has operated successfully since then, according to the DHES.

A major problem was detected on June 25, 1993, when Park County officials discovered a break in the 10-inch sewage pipeline buried three feet in the Yellowstone River bed. The line carried sewage from Gardiner, Mammoth and TW Services' laundry facility too the treatment plant. From the time of discovery, more than a million gallons of sewage leaked into the river.

A temporary line, supported by concrete platforms on each bank, was built to transport the sewage across the river.

The new 10-inch steel sewer pipe was be buried in a trench across the Yellowstone River this fall. The project took about two weeks to complete.

At the time of discovery, the water volume in the river was high, thus diluting the effluent. However, as a health precaution, DHES officials suggested people downstream from the break, boil water before using it.

2.18 Comment - Church vs. County Planning:

Church actions paralyze comprehensive planning efforts by the County.

Response:

Development activities of the Church require certain County permits, i.e. septic permits, floodplain development permits, subdivision and mobile home park permits, that must be reviewed by County offices, including that of the county planner.

According to the Park County Planning Office, the County Planning Board has recently launched a new effort toward formulation of a county-wide comprehensive plan which will establish general policies regarding growth, development and appropriate land use throughout the county. General informational meetings are being held and citizen advisory committees will be appointed in various geographic regions in the county. An informational meeting in the Paradise Valley region (extending from the 4 1/2 mile Livingston area city-county jurisdiction boundary to Yankee Jim Canyon) was held in April 1993. A meeting for the south end of the county was held in Gardiner on May 27, 1993. Upon adoption of the comprehensive plan by the county commissioners, subdivision and development plans will be reviewed within the context of established policy. It is expected that the comprehensive plan will be completed by 1995 (Woodbury, pers. comm., May 12, 1993).

Under Montana law (MCA 76-1-106), a county comprehensive plan can make recommendations regarding specific types of land use which may occur on private property, i.e. residential, commercial, industrial, agricultural, etc., but it does not have regulatory authority to impose land use controls. County-wide land use controls, in the form of zoning regulations or development permit systems, must be adopted separately under county zoning statutes.

Montana residents (including those in the south end of Paradise Valley) have the option to develop their own zoning districts, which provide more enforceable development management than does Comprehensive County planning. In lieu of county zoning, state law makes a provision for special planning and zoning districts to be established as a result of local initiative (MCA 76-2-101). A planning and zoning district may be formed by the county commissioners upon presentation of a petition signed by 60% of the affected landowners within the proposed district. Each property owner of record within the district boundaries counts as one interest, regardless of the number or size of parcels owned. Planning and zoning districts must include a minimum of forty acres. Zoning regulations may be adopted within the district which control the nature, timing, density, arrangement, integration and appearance of various developments and land uses. Because local zoning districts are based on local initiative, they can be usually developed and implemented faster than Comprehensive County plans.

2.19 Comment - Status of Work Camps:

What is the status of work camps at East Gate, the Ranch Headquarters and the Ranch Office?

Response:

The East Gate work camp for 64 employees at Corwin Springs was approved by the DHES prior to the first environmental review.

The Church applied for two more work camp licenses on May 11 1990. One was for 24 employees at the Ranch Office and the other for 251 employees at the Ranch Headquarters.

After reviewing the projects, the department was prepared to approve the Ranch Office. The wastewater system for the Ranch Headquarters had been approved, however there were problems with the water system's engineering specifications. In considering the two applications, the DHES finally decided it would defer approving both applications until the supplement environmental review was completed.

Although the department decided to defer both applications, it did not require the Church to relocate the people living at the two sites. The DHES concluded relocation would create more problems than it would solve. The Church and the department continued to work on the Ranch Headquarters water system plans in the interim.

2.20 Comment - Proposed Spring Creek Publishing Plant:

There is concern over the proposed "publishing plant" at the Spring Creek development. This proposal needs further clarification regarding the potential for chemical spills/leaks, type and volume of traffic, and employment patterns such as night shifts, and potential air emissions.

Response:

The proposed siting of the publishing facility at Spring Creek Headquarters is addressed throughout the DSEIS (refer to pages 1-14, 1-15, 3-85, 3-92, 4-14, 4-28, 4-59, and 4-70).

Hazardous and other regulated wastes produced by the publishing company will be handled separately from sewage waste and will be treated and disposed of off site according to state and federal standards. Spills of hazardous or other regulated materials associated with the proposed printing

shop at Spring Creek would not likely affect water resources because of the considerable depth to ground water and lack of surface water directly within the Spring Creek site. The potential exists for uncontained spills resulting from material transport and if the material reached the Yellowstone River, effects on aquatic life could be significant. The DSEIS identifies the need for a spill containment/emergency response plan as a mitigation measure.
Other potential impacts examined in the DSEIS include traffic, employment and visual quality. The publishing facility will have capacity for 150 employees (Table 1-3, pg 1-15, DSEIS). The existing publishing facility in Livingston does include some night shift work. One of the purposes of including the publishing facility at the Spring Creek Headquarters is to have the facility closer to employee living quarters. Consequently it is anticipated that shift work would not impact traffic on the highway. The location of the publishing facility in proximity to staff housing at Spring Creek is expected to decrease commuter traffic to Livingston and increase traffic of supplies and products. Due to the size of the facility (estimated at 87,000 square feet) it is anticipated to have an impact on visual quality.

2.21 Social and Cultural Relationships

2.21.1 Comment - Appreciable Changes/Media Events:

Many events have occurred since the DEIS and FEIS. Have social and cultural relationships between the Church and non-Church groups changed appreciably?

Response:

The 1989 DEIS discussion of social and cultural considerations relating to the Church's presence in Park County concluded by saying:

> Time is an important element when considering how successfully the Church will meld into life in Park County. The Church has been a presence for about six years, and its relationships with local residents are different now than they were when members began arriving in 1981. Dr. (William L.) Smith mentions this gradual incorporation into local life in his conclusion by saying:
>
> ...the Church Universal and Triumphant is a new religious group who (sic) has been in existence for close to thirty years. As with any new religion, the group has persevered through turbulent times and has continued to grow and expand its operations. Conflict is endemic whenever human beings propose and act on specific plans or strategies that help them to deal with and constructively answer the myriad of

> questions which surround our daily struggle to find meaning in life.
>
> The Church Universal and Triumphant's further "settling in" on the Royal Teton Ranch will depend, in a large part, on the final outcome of the hearings concerning the environmental impact study. The Church's ranching and farming operations are very successful and productive. They are truly on their way to becoming a self-sufficient spiritual community. The group appears to have the know-how, determination, and savvy to weather the present conflicts....

The following events were reported by the news media between the distribution of the FEIS and the preparation of the FSEIS. The events helped form the public's opinion of the Church:

1989

State Informed of Mol Heron Shelters - The DHES learned the Church was building a shelter complex in the upper Mol Heron drainage and expressed its "displeasure" at not knowing about the project during the DEIS and FEIS reviews. (Livingston Enterprise - July 24, 1989)

Church Members Plead Guilty to Weapons Charge - Two Church members pleaded guilty to violating a federal law prohibiting the purchase of military assault-style weapons under a false name. The Church's governing board said it had not authorized the purchase. One of the defendants said the money came from an inheritance. (Independent Record - December 16, 1989)

1990

No Leads in Gunshots at Vehicles - A Church bus and two cars owned by Church members were shot at by an unknown assailant(s). The Park County Sheriff's Office had no leads in the incidents. (Great Falls Tribune - January 4, 1990)

Families Worried About Loved Ones Living in Shelters - A Belgian father and two California mothers expressed concern about loved ones possibly living in the shelters. (Livingston Enterprise - March 5, 1990).

Relatives Worried About Church Going Underground - Relatives of Church members expressed concern about them going into the underground bomb shelters. A Church spokesman said members had "...no intention of going underground...." Nonetheless, continuing preparations heightened the concerns of people in Park County. (Great Falls Tribune - March 11, 1990)

Livingston Clergy Involved in Sanctuary - Livingston clergymen confirmed they were assisting adolescents seeking sanctuary. The youths reportedly feared being forced into fallout shelters. A Church Universal and Triumphant spokesman questioned the legality of such actions. (Great Falls Tribune - March 16, 1990)

Church Shelter Drill - The Church staged a surprise drill involving hundreds of members at bomb shelters throughout Park and Gallatin counties. A Church spokesman said, "Our goal was to see if we could get everybody in the shelters at midnight." (Bozeman Chronicle - March 16, 1990)

Fuel Leaks at Shelter - Two days after 800 persons attended a DHES scoping session in Gardiner to determine if another environmental review was warranted, reports revealed diesel and gasoline were leaking from fuel tanks at the Mol Heron shelter site. (Livingston Enterprise - April 12, 1990)

Shelter Construction Halted - The DHES obtained a restraining order to halt construction at the Mol Heron shelter site, and soon after, filed a lawsuit against the Church. (Great Falls Tribune - April 24, 1990)

UYDF Excluded From Case - The UYDF filed a motion to intervene in the DHES' lawsuit against the Church. The court denied the motion and ruled the group did not have standing to intervene. (Billings Gazette -June 15, 1990)

Church No Threat to Park - After a meeting with Church officials, former Secretary of the Interior Manual Lujan announced the Church posed no threat to Yellowstone National Park. The secretary's pronouncement resulted in a strong reaction from non-Church members and unnamed park officials. (Billings Gazette - August 23, 1990)

Second Scoping Meeting - A second scoping meeting was held by the DHES in Livingston in October. About 100 persons attended the session. (Livingston Enterprise - October 16, 1990)

Court Rules Against Permanent Injunction - The court ruled against the DHES' requested order preventing the Church from engaging in other construction projects while the supplement EIS was being prepared. (Livingston Enterprise - December 11, 1990)

1991

County Files Suit Against Glastonbury - Park County filed a lawsuit against the Church and the owners of two parcels in Glastonbury North and

South, alleging the land had been illegally subdivided. The landowners were members of the Church. After two years of negotiations, the owners and Park County settled the suit. (Livingston Enterprise - May 22, 1991)

Church and IRS Go to Court - The Church and the Internal Revenue Service (IRS) went to court over the agency's request for certain church-related records. Later in the year, a federal judge ruled the IRS should be allowed to proceed with its investigation. (Livingston Enterprise - July 25, 1991 and November 20, 1991)

Partial Consent Decree Negotiated - The DHES and the Church negotiated a partial consent decree. Included in the decree were provisions to begin the supplement EIS. Some non-Church persons and public interest groups were displeased with the negotiated settlement. (Livingston Enterprise - October 21, 1991 and October 23, 1991)

UYDF Files to Intervene - The Upper Yellowstone Defense Fund filed a second motion to intervene in the DHES' lawsuit against the Church. The Gardiner-based group termed the department's agreement with the Church a "full-scale retreat by the state." The court ultimately decided not to allow the group to intervene. (Livingston Enterprise - November 19, 1991)

1992

Deprogramming Attempt - The Church issued a statement deploring the kidnapping and brief imprisonment of a Boise, ID, member. The statement followed the arrest of individuals attempting to deprogram the person. (A little more than a year later, a Boise jury acquitted two people accused of the charges and declared a mistrial in the case of the third person. Charges are pending against four persons in the incident.) (Great Falls Tribune - February 2, 1992 and Bozeman Chronicle - April 25, 1993)

IRS Withdraws Tax Exempt Status - The IRS ruled the Church was not entitled to a tax-exempt status. The Church responded by filing suit in U.S. District Court seeking to overturn the agency's decision. (The dispute was expected to go to trial in December 1993, but the trial was postponed six months while the Church and the IRS engage in "settlement negotiations.") (Livingston Enterprise - November 25, 1992 and Royal Teton Ranch News - September 1993)

DSEIS Distributed - The DHES distributed the DSEIS for public review and comment. The department also held public hearings on the draft on January 5 and 6 in Gardiner and Livingston, respectively. About 180 people attended the Gardiner hearing, and more than 100 were present the next night in

Livingston. The people who testified spoke against the Church and its proposals. The Church chose not to testify. (Independent Record - November 20, 1992 and Livingston Enterprise - January 6 and 7, 1993)

1993

Water Compact Supported - The Church added its support to a proposed compact between the State of Montana and the National Park Service creating restrictions to geothermal development in a Yellowstone Controlled Groundwater Area. The Montana Legislature subsequently approved the compact and the governor signed it into law.

Church and the Waco Cult - The Church said it was inaccurate and unfair to compare it with the Branch Davidians in Waco, TX. The article reported it was unsettling for local people who were drawing comparisons between the Church's shelter complex and members' interest in weapons and the Davidians' former compound and weapons. In her remarks, Church leader Elizabeth Clare Prophet said there would be no David Koresh-style defiance of authority and added the Church would willingly open its property to a federal Bureau of Alcohol, Tobacco, and Firearms agent with a lawful search warrant. (Independent Record - March 21, 1993)

Feds Allege Weapons Activity - The U.S. Department of Justice filed documents in federal court in Washington, D.C. alleging "high-ranking" Church staff members had stockpiled, moved and guarded weapons, thus violating the Church's tax-exempt status. The Church denied the charges. (Livingston Enterprise - June 30, 1993)

Based on the scoping sessions for the DSEIS, the department did not believe there had been a significant change in the social and cultural considerations since the publication of the DEIS. The previously cited media reports underscore the department's belief that neither the Church nor those who oppose the Church and its developments have appreciably changed their opinions.

2.22 Traffic Concerns

2.22.1 Comment - Vehicle Count:

The Church has had a major impact on traffic. Why has the state not conducted a legitimate and periodic vehicle count of their own?

Response:

The DSEIS indicated that the projected traffic for the county road between the Ranch Office and Ranch Headquarters would increase by a minimum of 500 percent over estimated 1987 usage. This is considered a significant impact that would require mitigation measures identified in Alternative 3. A traffic count on the county road might provide a baseline against which to measure future impacts but information from the Church on its anticipated traffic patterns would still be necessary to identify potential impacts from the Church's proposed development. Consequently, a traffic count would not change the assessment of the impacts as significant.

2.22.2 Comment - Heavy Trucks:

The lack of an alternative heavy truck travel route ensures that every truck with a gross weight over eleven tons must travel through YNP from Gardiner to the Church construction site(s). The potential for accidents and resource damage can be expected to increase.

Response:

Unless the Corwin Springs bridge is rebuilt to handle heavy trucks, truck traffic through Gardiner will create a significant impact, as indicated in the DSEIS. This impact is not limited to Gardiner, but also affects YNP. It is for this reason that it was recommended that these entities participate in a voluntary resolution process for alternate routing through Gardiner. Any route through Gardiner would still require use of the county road through the park and increased traffic could impact road conditions and safety. Increased truck traffic could continue for several years because the Church has an indefinite timeline for actual development. Construction traffic combined with truck traffic needed to service an increasing attendance at the summer conference creates serious cumulative impacts.

2.22.3 Comment - Replace Corwin Springs Bridge:

The Corwin Springs bridge should be replaced so that the impacts of routing truck traffic through Gardiner can be eliminated.

Response:

Alternative 3 requires the Church to cooperate with the state and county in replacing the Corwin Springs bridge.

Last summer the Park County Commission received a letter from the

Montana Department of Transportation (MDOT) informing it that the Corwin Springs bridge had been approved for the Off-System Bridge Program for fiscal year (FY) 1997-2002.

The Montana Highway Commission's (MHC) approval enables reconstruction or replacement costs to be funded with 80% federal and 20% state matching funds. There would be no direct cost to the counties.

According to the MDOT, assuming state funding is available, the final approval for work on the Corwin Springs bridge is scheduled to come before the MHC in FY 1995, with reconstruction or replacement to be finished in FY 1999-2000. Lack of available money could delay the work beyond the turn of the century.

If the bridge fails before scheduled construction and must be refurbished or replaced by the county the federal and state funding would be redirected to other projects.

2.23 Population Concerns

2.23.1 Comment - Gardiner:

Gardiner is alleged to have grown in population from 209 in 1980 to 511 in 1990. This is erroneous. The 511 number doesn't match the population of Gardiner cited elsewhere in the DSEIS.

Response:

The numbers cited for the population of Gardiner for 1980 and 1990 were obtained from the Census and Economic Information Center in Helena, Montana. These numbers are specifically for Gardiner and do not incorporate the surrounding area. Census boundaries changed from enumeration districts in 1980 to census tracts and blocks in 1990 complicating comparisons between 1980 and 1990. With the exception of a fluke whereby the town of Gardiner was mistakenly counted as part of Yellowstone Park, the 1980 numbers for Gardiner would not have been available. The Enumeration District that included Gardiner also included Jardine, Corwin Springs, the Dailey Lake area, and portions of the Beartooth Wilderness. This Enumeration District had 969 persons according to the 1980 census. As shown on the map on page 3-99 of the DSEIS, the 1990 census tracts comprise smaller areas than the 1980 Enumeration District. 1990 population for each census tract is shown as the number within the tract.

The population of Gardiner was cited on page 4-64 of the DSEIS as 551. This was a typographical error and should be corrected to read 511.

2.23.2 Comment - Other Applicant-Controlled Property:

Absolutely no clear information is provided about the applicant's population elsewhere off applicant-controlled property in the county, much less their total membership.

Response:

GeoResearch wrote to Edward Francis (20 April 1993) and specifically asked him to "...provide estimates for Church membership world-wide, nation-wide and in Park County, Montana." Francis replied, "The Church does not disclose its membership figures as a matter of religious belief."

Francis was also asked to consider his estimate of attendance at the summer conference in light of the public comments that made reference to the Pearls of Wisdom call for greater future attendance. His response (6 May 1993) was "... you may wish to consider in the Final SEIS that total attendance could rise to as high as 8,000 at some undetermined time in the future." Francis had earlier indicated (6 June 1992) that the capacity of the Mol Heron Campground is 3,500 persons and that overflow was handled at the East Gate/Cinnabar Campgrounds with a combined additional capacity of 500. Other conferees either live in the local area or stay in local motels or other accommodations. Increased attendance as indicated in Francis's recent reply would appear to require additional campground facilities at some point. As indicated in Section 1.5.1, the Church is considering additional shower houses.

Total attendance at the 1993 summer conference was approximately 3,500 persons. This was about a 17% decline from the previous year.

It was assumed in the DSEIS that Church growth in Park County was virtually unlimited for purposes of cumulative effects analysis.

2.23.3 Comment - Housing and Structures:

Map 1-3 locates a total of 68 structures (30 identified as housing), however on Page 4-49 the description of the proposed development indicates a total of 92 structures of which 56 are housing units. Please clarify.

Response:

Upon request to respond to this specific comment, the Church responded that a total of 72 structures are depicted on Map 1-3, but that some of the structures are shown as interconnected. An additional 20 buildings would be located in the expansion area shown on the map.

2.24 Comment - Immunization:

Why does the Church oppose immunizations for communicable diseases?

Response:

Monica McKeever, M.D., wrote a Letter to the Editor printed by the Bozeman Chronicle on February 12, 1993, denying the Church has any religious tenets or doctrines stating children should not be immunized. She said:

> The church requires all staff and residents of the Royal Teton Ranch and all of their children to be immunized for diphtheria, tetanus, pertussis, polio, Hemophilus influenza type b, measles, mumps and rubella. The schedule for immunizations is based on recommendations of the American Academy of Pediatrics and the Centers for Disease Control.

She added that the Church also recommends that its members worldwide be immunized for vaccine-preventable diseases.

Dr. McKeever said she had been involved in providing family medical care for the Church staff and their families on a part-time basis for several years.

2.25 Comment - Mobile Home Sales:

Does the Church sell mobile homes?

Response:

Since 1984 the Church (or its predecessor Royal Teton, Ltd.) has acquired new single-family manufactured housing units (including mobile and modular homes) for resale to its members living in the Community of Glastonbury or, in a few cases, persons living on the RTR-S. No sales were made to non-Church members and no public sales office or lot is maintained.

The Church (and its predecessor) has a trailer dealer's license from the Montana Department of Justice/Motor Vehicle Division since 1984.

With the creation of the new Royal Teton, Ltd., the Church plans to phase out of the mobile and modular home business. The new Royal Teton Ltd. will carry on the business and will not be limited to selling to Church members or Glastonbury property owners.

CHAPTER 3

WRITTEN COMMENTS

3.1 Agencies - Written Comments

DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION

STAN STEPHENS, GOVERNOR
LEE METCALF BUILDING
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STATE OF MONTANA

DIRECTOR'S OFFICE (406) 444-6699
TELEFAX NUMBER (406) 444-6721
PO BOX 202301
HELENA, MONTANA 59620-2301

December 29, 1992

Mr. Steven Pilcher
Department of Health and Environmental Sciences
Cogswell Building
Helena, MT 59620-0901

RE: Church Universal and Triumphant Draft Supplemental
Environmental Impact Statement

Dear Mr. Pilcher:

Thank you for the opportunity to review the Draft Supplemental Environmental Impact Statement for developments proposed by the Church Universal and Triumphant. First, we would like to commend the department and its consultants for doing such a thorough and objective job. The professionalism that is evident is particularly admirable in light of the controversy surrounding these proposed actions. Because the document is so thorough, our comments are limited to the three ideas that follow.

1. In addition to the supplemental draft, we also reviewed the previously published draft and final EISs addressing the Church's proposed developments. Still, we believe it may be unclear to the reader as to how the DHES will reach a decision on the applications before it, and how the EISs will be used in this decision-making process. It is our understanding that the DHES will have to approve water and wastewater systems proposed by the Church, as well as an application to install underground fuel storage tanks. But who in DHES will make the decisions? And--most importantly--how will the EISs be used? These are basic questions the public may have. Without answering these questions, the EIS process may appear to be just a paper exercise--something that merely has to be done before the applications can be granted.

2. In estimating soil losses that could occur as a result of construction activities by the Church, the Universal Soil Loss Equation (USLE) was used. The USLE was originally developed to estimate annual rates of erosion from cultivated areas in the eastern United States. With care, it can also be used to approximate erosion rates from other activities, such as construction, which disturb the soil surface. In the SDEIS the USLE was used to produce an

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estimate of annual soil loss from the construction sites in tons per year. This could be misleading.

Typically, construction activities disturb the soil surface for a relatively short time. But if a heavy storm occurs during the time of peak activity, there is the potential for severe soil erosion. In other words, months worth of "average" soil erosion, and associated adverse impacts, could occur within a few hours. We would therefore like to reiterate the importance of Church's implementing proper erosion control practices during the time of construction. The use of hay bales at construction sites has been appropriately suggested in the SDEIS; erosion mats and mulching could also be used to cover disturbed surfaces where the erosion potential is high.

3. In estimating the potential effects of the Church's proposed activities on nutrient loads, discharge/nutrient concentration relationships were used for the Yellowstone River at Corwin Springs. Impacts there were generally found to be minor. Although the transport of pollutants through flowing system such as the Yellowstone River is complex, there is the potential for nutrients to be transported far downstream of their place of origin. Please note that any additional nutrients could, in a cumulative sense, contribute to a gradual downstream deterioration of water quality in the Yellowstone River.

Thank you for considering these comments.

Sincerely,

Larry Dolan
Program Supervisor
Water Management Bureau

cc: Rich Moy
Gary Fritz
Karen Barclay Fagg

United States Department of the Interior

FISH AND WILDLIFE SERVICE
FISH AND WILDLIFE ENHANCEMENT
FEDERAL BUILDING, US COURTHOUSE
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IN REPLY REFER TO

M.19 Gallatin NF/CUT

January 5, 1993

RECEIVED
JAN 07 1993
MDHES
Environmental Sciences Div.

Steven L. Pilcher, Administrator
Montana Department of Health and Environmental Sciences
Environmental Sciences Division
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Helena, MT 59620-0901

Dear Mr. Pilcher:

This letter is in response to your invitation to review the Draft Supplement Environmental Impact Statement (DSEIS) for projects proposed by the Church Universal and Triumphant (Church) in Park County, Montana. The Fish and Wildlife Service (Service) has reviewed this DSEIS and offers the following comments.

The Service's primary concerns with the projects discussed in the DSEIS are with those projects proposed to occur on the Royal Teton Ranch - South (RTR-S) unit. The Service is pleased that agreements have been reached with the Church that address certain fish and wildlife related concerns pertaining to several of the activities originally proposed to occur at the RTR-S. These include the Church's agreeing to: locate all animal processing facilities, root crop production areas and composting activities off of the RTR-S; construct and maintain a "bear-proof" fence around the tree farm area at the RTR-S; attempt to reduce vehicular traffic associated with their developments through mass transit and car-pooling; reduce the availability of food and garbage attractants at the Mol Heron sites; distribute information on grizzly bears to campers using Church facilities; and establish and protect minimum instream flows for Reese Creek. However, the fact remains that the entire RTR-S unit is within the Yellowstone Grizzly Bear Recovery Zone and therefore, the Service remains deeply concerned about the prospect of continued development in that area.

The upper Mol Heron drainage is within Management Situation 1 (MS-1) grizzly bear habitat, which is defined as an area that contains grizzly population centers and that is essential to the survival of the grizzly. Upper Mol Heron Creek also includes a portion of the Recovery Zone that has very high grizzly cub production rates and is a likely area into which the Yellowstone grizzly bear population could expand. It is disturbing that developments such as the Conference Site and the Mol Heron Shelter Complex, which would service thousands of people at a time, are proposed in habitat that is considered critical to the survival of the threatened grizzly bear. The Service is deeply concerned that increased human activity in that area may displace grizzlies from important habitat components and thus reduce the productivity of those bears. Developments such as these could also add significantly to the problems associated with the

Gardiner area grizzly bear "population sink," as mentioned in the DSEIS.

The Service is also concerned that the proposal to expand the Spring Creek Headquarters Site would occur within an area that is important winter range for elk, mule deer, pronghorn antelope, bighorn sheep and bison. The areas of the RTR-S adjacent to the Yellowstone River where the Spring Creek Headquarters expansion would occur are also areas likely to be used for feeding by endangered bald eagles and are within the foraging range of endangered peregrine falcons that use areas around Dailey Lake. The hundreds of people that would reside there, and the thousands of people that would work at or visit this site, would likely preclude many wildlife species from utilizing the important habitats that occur there.

Although direct impacts of the Church's developments proposed for the RTR-S to habitat components important to grizzly bears, bald eagles, peregrine falcons or other wildlife species may not be great, the potential adverse impacts associated with hundreds or thousands more people living, working and recreating in these vital and sensitive areas should not be dismissed. A higher level of human activity would likely increase the mortality risk to many of the wildlife species in that area and decrease the availability of habitats important to the survival of these species.

The Service reiterates its recommendation that the development of a comprehensive multiple species wildlife conservation plan be initiated to outline the mitigation for impacts to wildlife resources from the proposed and future developments on Church lands in Park County in a systematic manner. Other interested agencies such as the National Park Service, the Forest Service and the Montana Department of Fish, Wildlife and Parks should be included in the development and review of this conservation plan. In addition, the Service advocates the adoption of all the proposed wildlife and fisheries mitigation measures outlined in the DSEIS as well as those in the 1989 Final Environmental Impact Statement for this project.

These conclude the Service's comments on this DSEIS. If you have questions regarding this letter or require further information, please contact Mr. Scott Jackson, of my staff, at the letterhead address provided above or by telephone at (406)449-5225. Thank you for the opportunity to comment on this proposed project.

Sincerely,

Dale R. Harms
State Supervisor
Montana State Office

SDJ/sdj

cc: Grizzly Bear Recovery Coordinator, Missoula

"Take Pride in America"

United States Department of the Interior
NATIONAL PARK SERVICE
YELLOWSTONE NATIONAL PARK
WYOMING 82190

IN REPLY REFER TO:

L76(YELL)

RECEIVED
JAN 19 1993
MDHES
Environmental Sciences Div.

Mr. Steven L. Pilcher
Montana Department of Health and
Environmental Sciences
P.O. Box 200901
Helena, Montana 59620-0901

Dear Mr. Pilcher:

The staff of Yellowstone National Park (YNP) have reviewed the Draft Supplement Environmental Impact Statement (DSEIS) addressing proposed developments by the Church Universal and Triumphant in Park County, Montana. The following comments add greater detail to the park's statement given at the January 5, 1993, public meeting held in Gardiner, Montana.

General Comments

The DSEIS fails to examine a complete range of ". . . realistic and technologically available. . ." alternatives (DSEIS, pg 2-1) that, while recognizing the right of the landowner to develop his land, also "preserve(s) the important . . . natural aspects of our unique heritage . . . ." (Montana Environmental Policy Act, Section 75-1-103(d)). The DSEIS alternatives of (1) Denial, (2) Approval, and (3) Approval with Mitigation Plan do not present any alternative approaches. The proposed action is identical in each alternative.

Alternatives should be included which examine different locations for the proposed developments within the RTR-S property. The DSEIS justifies the exclusion of alternative locations within RTR-S on the basis of the First Judicial District Court ruling, which found that ". . . it certainly does not make any sense to consider locating their proposal on other Park County properties" because "The Church feels that the RTR-S property is divinely inspired for their purpose." We find this inappropriate because, presumably, the entire RTR-S property is "divinely inspired," and alternative locations within the property could be examined.

Alternatives which consider the location of specific functions and the relative impact of each location should also be examined. The decision by the Church to move its slaughterhouse to their northern properties in order to avoid attracting bears is an encouraging example showing that alternative locations are possible and should be examined. For the current proposal, one example of an alternative siting would be not to move the publishing facility from Livingston to the Spring Creek site. By leaving the publishing facility where it is, there would be far less impact to the environment than moving it to a new, relatively undisturbed site.

The Montana Environmental Policy Act also requires an appropriate evaluation of mitigations. Alternative 3 is the only alternative which includes mitigation. The list of proposed mitigation measures is insufficient to address the significant list of identified impacts.

We strongly suggest that the DSEIS re-examine the impact analysis and include both the existing and future developments in the cumulative effects section. The DSEIS treats the pre-EIS developments (such as the jackleg fence) and post-EIS developments (the most obvious being the bomb shelters) as 'givens,' and they are not assessed nor included in any cumulative impacts analysis.

Specific Comments

Wildlife. We fully recognize the rights of landowners adjacent to the park, and their diverse interests with respect to their lands, but wildlife do not recognize property boundaries. Wildlife are and will continue to be affected by developments, such as those proposed by the Church, as animals utilize their historic range. The question is, what can be done to minimize the impacts.

We applaud several positive actions the Church has taken to mitigate impacts to wildlife and fisheries as a result of the EIS prepared in 1988/89. These include relocating their root crop production, a poultry slaughterhouse facility, and the compost operation (all of which are attractants to bears) to their northern properties. In addition, an agreement was negotiated to establish a minimum instream flow for Reese Creek. The agreement to keep the Church's domestic sheep off bighorn sheep winter range on Cinnabar Mountain, **if** adhered to, would also be positive.

Unfortunately, the only additional wildlife mitigation measure identified in the DSEIS for the present proposal is to construct powerlines using techniques for raptor safety. This is a positive suggestion, and we recommend that it be a made a requirement, but more mitigation is needed.

One of the most glaring omissions of this document is the lack of any proposals to mitigate the numerous, identified impacts on elk, deer, antelope, bison, and bighorn sheep due to the proposed actions. These species have used the lands adjacent to the park as wintering grounds since the Ice Age and, unlike humans, have no other place to go. Regardless of conflicts with human interests, these species will move.

The DSEIS should examine an alternative of consolidating the proposed Spring Creek development with the existing Corwin Springs or Ranch Headquarters developments. The proposed Spring Creek site is located in the middle of crucial winter foraging habitat for migratory wildlife and will have far-reaching impacts on ungulate species. Recognizing this fact and further clustering the housing and work areas into existing developments would lessen future problems for both the Church and wildlife.

The DSEIS recommends the preparation of a Multiple Species Conservation Plan if large-scale development beyond the current proposal is considered in the future. The conservation plan is recommended because of possible cumulative impacts, not because of identified primary, secondary, and reasonable foreseeable cumulative impacts of the proposed development (DSEIS, pg. 2-2). Many significant impacts are already identified for this development. We are concerned that there are few, if any, corresponding mitigations proposed. These need to be included in the present analysis.

Given the assumption that the Church will continue to grow, as evidenced by its recent history, we believe that mitigation measures such as the Multiple Species Conservation Plan must be required at this stage of development, not just recommended for a future time. We would be pleased to work with the Church, the State of Montana, and any other landowner on such a plan.

The DSEIS acknowledges that the area near Gardiner, bounded on the east by the Absaroka slopes, the west by the Gallatin River and extending north to Dailey Lake, is a major "population sink" for grizzly bears. The DSEIS further states that the cumulative effects of Church activities will significantly add to the problems associated with the "sink." The DSEIS should analyze what factors make this area a sink and what actions can be taken to minimize grizzly mortality.

We strongly disagree that the direct effects of the proposed actions on grizzly bears would be negligible. The presence of human developments and associated activities displaces bears, significantly degrades habitat quality, and increases the potential for bear/human encounters, all of which ultimately lead to bear mortalities. In addition, known attractants such as orchards, livestock, sewage, and garbage increase the potential for conflicts and subsequent bear mortality.

As additional mitigation, we suggest that all domestic sheep grazing be restricted to lands north of Yankee Jim Canyon. This would minimize the potential for grizzly predation and, therefore, conflicts with the management of the Church's livestock. We also recommend that the fencing around the tree farm be strengthened. Apparently there have not yet been problems, but as the trees mature and begin to bear fruit, the orchard's attractiveness to bears will increase. We believe the current fence is not adequate to deter bears. An even better mitigation would be to move the orchard. Even if the bears are kept out of the orchard, they will be attracted to the area, and the chances for conflicts and the need to remove bears will increase.

The DSEIS states that Cumulative Effects Modelling would be superfluous, expensive, and no less conjectural than the narrative discussion presented in the DSEIS. This stance came as a surprise to us because the state has long required or admonished the lack of cumulative effects modelling in federal planning. Thus, we believe this description of cumulative effects modelling is incorrect and a modelling effort would quantify bear habitat quality and would evaluate the benefits of mitigation actions. The Church's lands are integral to the welfare of the grizzly bear and we would welcome the opportunity to work with and include the Church in the effort to protect grizzly bears. Incidently, the Interagency Grizzly Bear Study Team has been documenting bear sightings since the mid-1970s, not just since January 1989.

Page 3-21: Why is the project area considered a travel corridor for wolverines as opposed to an area of residency? Please provide data to support this statement.

We could not find any evaluation of the effects the developments would have on bighorn sheep. We remain concerned about the possibility for transmission of disease from domestic sheep to bighorns. We again recommend that all domestic sheep grazing be restricted to the Church's Glastonbury/RTR-N lands.

The effects of the Church's jackleg (buck and pole) fence on wildlife populations must be included in the DSEIS as a component of the cumulative impacts analysis. It is not appropriate to state that survival necessitates animals to adapt, and that ungulates may find the open gates, go under the fence, or choose to avoid the fence altogether. There are federal lands to the north and south of the fence, and we believe the current fence may violate the Unlawful Inclosures Act of 1885 by "obstruct[ing] free passage or transit over or through the public lands." While the fence is not an enclosure, it is an obstruction to wildlife populations moving freely between federal lands.

As we stated in our September 7, 1990, letter to Mr. Edward Francis:

> ...we request that the Royal Teton Ranch, Incorporated replace or modify the jackleg fence across the wild

> ungulate [primarily, mule deer, pronghorn antelope, and elk] migration route. We would prefer that the entire fence be removed and replaced with a 3-wire fence that meets published wildlife passage specifications. The gates should be left open at least October through April.
>
> In the event the ranch sees fit not to replace the fence we request that all wooden rails be removed from single section approximately every 100 yards. These rails should be replaced with a 3-wire fence that meets published specifications for wildlife passage. The wires should allow published specifications for wildlife passage. The wires should allow pronghorns to crawl under them and elk to jump over without injury in normal circumstances. All 22 existing gates should be left open at least October through April, which includes the major migration times to and from public winter range.

Geothermal Development. The DSEIS avoids analyzing the potential impacts of geothermal development because at this time the Church has not submitted any proposals for geothermal development that require state permitting, specifically, application for a well producing 35 gpm or more. We continue to be concerned with the impact of **any** geothermal development on the boundaries of Yellowstone National Park regardless of size, and insist that all potential geothermal use be thoroughly assessed and not be ignored or deferred to a later date.

We agree with the DSEIS's statement that the potential effect on the flows at Mammoth Hot Springs resulting from pumping the Church's well is highly speculative given the current level of information. The DSEIS cites a professional opinion by the U.S. Geological Survey that the Church's geothermal well (pumped at a rate of 33.5 gpm) poses no risk of adverse effects on the thermal features in Yellowstone National Park. However, it is the park's position that this, in fact, cannot be known until data is acquired that is designed to measure the actual effects of water withdrawal upon the hydrothermal system which affects the hydrothermal features within Yellowstone National Park. We request that a commitment be made to collect that data and that it be made available for public review.

Sediment Yield. The figure of 0.3 acre of disturbance used to calculate sediment yield at the Mol Heron site (DSEIS, pg 4-22) is too small. The DSEIS states that the calculations are for the construction phase only and that only the reinstallation of the underground fuel tanks is considered. The additional disturbances identified on page 1-16 ("...on-site septic systems, and associated site work (i.e. access, recontouring, landscaping, fencing, etc.).") must be included to give an accurate estimate of sediment yield during construction.

On page 4-22, the total area of disturbance for the Spring Creek development is described as 93 acres. On page 4-42, it says approval of the Spring Creek Headquarters would result in disturbance to about 109 acres and, with permit modifications, impacts would be somewhat greater. Please clarify and, if necessary, recalculate the soil-loss equation.

Does the calculation of sediment yield take into account that additional construction is expected to occur over a number of years (DSEIS, pg 4-42)?

The DSEIS states on page 1-21 that, "The time frame for cumulative analysis includes past, present and potential future actions." However, the cumulative effects discussion beginning on page 4-29 ignores the effects of existing developments, the effects of many thousands of people using the area each year, and the probable erosion from access roads which do not meet design standards for all-weather roads. All of these factors must be included for a true estimate of potential sediment yield.

Revegetation. We recognize the presence of a host of non-native plant species in and around the park. Nevertheless, we continue to be concerned about the use of non-native species for revegetation. Non-native species were seeded in the park in the past, and we know now that was a serious mistake. Some of these plants are very aggressive and ultimately will alter the vegetation complex. This, in turn, can have serious consequences for wildlife/habitat relationships, both inside and outside of the park. We urge all of our neighbors to use only native species in their revegetation efforts.

Traffic through Yellowstone National Park. The proposed increase in construction activities and associated truck traffic is of great concern to YNP. The lack of an alternative heavy truck travel route ensures that every truck with a gross weight over eleven tons must travel through the park from Gardiner to the construction site(s). The potential for accidents and resource damage can be expected to increase. For example, in recent years, a concrete truck overturned on its way to a Church construction site. The concrete had to be dumped on-site in order to extract the vehicle, and the concrete was removed later. The potential damage from a hazardous materials spill is even greater.

We support the suggestion that the Corwin Springs Bridge be replaced. However, given the low priority that the Montana Department of Transportation has given it for replacement, the DSEIS should examine other alternatives, such as locating the proposed developments in areas which would not require heavy trucks to travel through the park.

In conclusion, we believe the DSEIS should examine a complete range of alternatives, which includes alternative locations for the proposed developments. Cumulative effects analysis should not be treated in such a cursory manner and should truly evaluate past, present, and potential future actions. All potential geothermal use should be thoroughly assessed in this document and not deferred to a later date. Finally, significantly more mitigating measures are needed to minimize the impacts, and they must be required.

Thank you for the opportunity to review and comment on the DSEIS. If you have any questions or comments, please contact Stu Coleman, Assistant Chief Ranger - Resources Management at (307) 344-2150 or Mary Hektner, Management Biologist at (307) 344-2151.

Sincerely,

D. Varley

for Robert D. Barbee
Superintendent

3.2 Groups - Written Comments

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BEAR CREEK COUNCIL

P. O. Box 448 — Gardiner, Montana 59030

January 15, 1993

Steven L. Pilcher
Department of Health and Environmental Sciences
Cogswell Building
P.O. Box 200901
Helena, Montana 59620-0901

Dear Mr. Pilcher:

Although Bear Creek Council made a formal statement at the January 5, 1993, public hearing in Gardiner, Montana, on the draft Supplemental Environmental Impact Statement (SEIS) for the Church Universal and Triumphant, we wish to submit these more detailed comments to be included in the public record.

Bear Creek Council has been concerned about and involved in this issue since the mid-1980s. The goal of the Council is to promote responsible use of area resources in order to ensure quality of life and the protection and integrity of the environment. Although many of our members have chosen to live in this area because of its rural character, we recognize that, inevitably, growth will occur here. We are not, in principle, opposed to growth if it is done responsibly, with thorough evaluation of reasonable alternatives, with sensitivity to environmental concerns, and in a legal manner. That is NOT the case with this development. From the arrival of this developer in Park County, their history has been one of building first and applying for necessary permits later--and then only if caught. They continue to site developments in environmentally sensitive locations and ignore the consequences. They continue to mask the truth about events, numbers, and plans for development. When challenged, this developer hides behind the statement that they are being persecuted for their religious beliefs.

This draft SEIS is filled with inaccuracies (map details, population figures, history of events) and lacking in significant information with which one can accurately judge the impacts of this development.

Because of Bear Creek Council's involvement with water quality issues in the area, a particular concern of ours is the lack of

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baseline water quality data for Mol Heron Creek. This stream is significant for cutthroat trout spawning. The original EIS "assumed" that the water quality was "high". Since that EIS, massive development in this high mountain drainage has occurred, with damaging consequences to Mol Heron Creek. Because of the many events our members have witnessed in this stream (the infamous 1990 fuel spill, the numerous turbid water events--indicating sediment load--in Mol Heron Creek when Cinnabar Creek was running clear at the same time, the numerous developments along the creek which include septic systems), we no longer "assume" that the water quality of Mol Heron Creek is high--but we have no data to prove it.

Bear Creek Council currently monitors water quality in Bear Creek and the Yellowstone River (from above Bear Creek to Yankee Jim Canyon). We began this monitoring study because of our concerns that the Mineral Hill Mine in Jardine could potentially affect the water quality of this area. We have worked in cooperation with the U.S. Forest Service and U.S. Fish and Wildlife Service in this effort. We wrote to the Church Universal and Triumphant in 1990 requesting permission to set up a similar study on Mol Heron Creek--this request was denied. We are adamant in our demand that the state MUST institute a baseline study of the water quality of Mol Heron Creek and establish an independent water quality monitoring program to track what is happening to the stream. We, of course, feel that the developer should be required to fund this baseline study and monitoring program.

The LaDuke Hot Spring geothermal water issue is not adequately addressed in this draft SEIS. In the 1989 Final EIS on the Church Universal and Triumphant, the developer signed a mitigation agreement which stated that "the geothermal well drilled to tap the aquifer serving LaDuke Hot Spring will not be developed or utilized [emphasis added] until a change in the point of diversion and place of use is authorized. . ." In June of 1992, without such authorization, the developer began to pump these waters. This act shows the intent of the developer to use this well and, as such, is a connected action to the developments examined in this document. Consequently, use of the LaDuke Hot Spring geothermal well is an issue which must be examined in this SEIS before the document can be considered sufficient.

The Montana Environmental Policy Act requires that an impact analysis include reasonable alternatives. The alternatives presented in this document are "Approval," "Denial," and "Approval with Mitigation Plan." We do not consider these to be a reasonable range of alternatives. Each proposed action should include an alternative for siting that portion of the development elsewhere. We do not agree with the Department's interpretation of the First Judicial District Court ruling as a justification for not examining alternatives. We believe that that ruling applied only to those actions disclosed in the original EIS.

Nothing in that ruling suggests to us that developments not revealed then or those subsequently proposed should be covered by that Court's decision. Consequently, we consider this document inadequate until alternative sites, especially for the Mol Heron bomb shelter and the Spring Creek townsite, are examined.

The Mol Heron bomb shelter site is located in a high mountain valley, surrounded by Management Situation 1 grizzly bear habitat. It is an inappropriate location for bomb shelters, not only from an environmental perspective but also based on logic when you consider the development's intended purpose. Environmentally, the burial of tanks capable of storing 870,000 gallons of petroleum products and liquid propane, has already proven disastrous. We do not believe that that much fuel can be safely transported up narrow mountain roads, transferred to underground tanks, stored, and monitored adequately in that location. What provisions will be required of the developer to deal with a hazardous materials incident? What if a vehicle accident during transport of fuel leads to explosion and fire. The nearest HAZMAT team is located in Bozeman. Will this team be expected to respond? Logically, if the bomb shelters were needed for their intended purpose, the crush of people trying to get there would present massive problems. It would be more logical for this facility to be sited in a more accessible location.

We also believe that bomb shelters designed for 750 persons cannot conceivably be considered private with regard to water and septic system permits. Montana law (Section 75-6-112 MCA) requires that plans and specifications for water and wastewater systems designed to serve or [emphasis added] serving 25 or more persons be reviewed as public systems. The rationale in the draft SEIS for not reviewing this development as a public system is that the Consent Decree signed by the developer and the State limits their review. We do not agree. In the Consent Decree stipulations, "the Department reserves all rights and authorities under State law concerning licenses, permits, and approvals issued to the Church should just cause be found." Because we believe the bomb shelters were illegally built, we believe the State has "just cause" to examine them as public systems with regard to permits. We also believe the State has the right to require the developer to abandon the development in place, rehabilitate the area, and site their bomb shelter facility elsewhere after following proper procedure and acquiring required permits.

We are particularly concerned about the adverse effects to wildlife that the Spring Creek development will create. This area is winter range for many species of wildlife. The townsite is located in a narrow constriction between Cinnabar Mountain and the Yellowstone River. Mule deer, antelope, bighorn sheep, and elk use this area every year. Winter is a critical time for wildlife and added stresses can often mean the difference between survival and death. Although this community is described as designed for approximately 500 residents, more than 2,500 additional persons can be expected periodically. These numbers of people, the traffic, the noise, all present a serious new disruption to the wildlife in the area. It seems clear to us that a reasonable alternative to the Spring Creek site is at the mouth of Mol Heron Creek or at Corwin Springs. There is already development at these locations, the topography could allow more room for free movement of wildlife, and "strip development" would be avoided (by allowing the development at Spring Creek, there would be 3 communities within 3 miles of each other, not what we would call "cluster" development).

We are also concerned that the developer is proposing to site a "publishing plant" at the Spring Creek development. The document does not disclose what chemicals or other toxic or hazardous materials would be used here, the type and volume of traffic associated with this light industry, any potential air emissions associated with this plant, and other unknowns. This proposal needs further clarification.

The mitigations discussed in this document are not adequate. Many of the mitigations suggested are only "recommended"; there is no independent monitoring program or enforcement mechanism to assure the public that the developer will do the mitigations; sedimentation control by use of haybales is a casual mitigation measure--sedimentation ponds and use of filter fabric should be required; except for powerline design, there is no mitigation proposed for wildlife impacts from these actions (the "Multiple Species Conservation Plan" is designed to encourage the developer to avoid critical areas in any future development plans, and it must be negotiated); and there are no water quality baseline studies and monitoring of Mol Heron Creek (invertebrate community studies are only recommended). This section of the document must be strengthened before the document can be considered adequate.

It is the position of Bear Creek Council that the draft Supplemental Environmental Impact Statement on the Church Universal and Triumphant developments is inadequate as written. The Department must withdraw this draft and prepare a new one based on these, and the many other, substantive comments received during the public review process.

Sincerely,

Beth Kaeding

Beth Kaeding
for Bear Creek Council members

Church Universal and Triumphant®

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Environmental Sciences Div.

January 16, 1993

Steven L. Pilcher, Administrator
Environmental Sciences Division
MONTANA DEPARTMENT OF HEALTH AND
ENVIRONMENTAL SCIENCES
Cogswell Building
Helena, Montana 59620

Re: Comment on Draft Supplement EIS

Dear Mr. Pilcher:

The following constitutes our written comments on the Draft Supplement Environmental Impact Statement (DSEIS) issued by the Department on November 19, 1992. Please note that we also wish to submit comments on the other public comments, testimony and information received by the Department during the extended comment period ending on January 17, 1993. This will not alter the schedule for completion of the SEIS as outlined in the contract with GeoResearch, Inc.

1. COMMENTS ON CHAPTER 1 - DESCRIPTION OF THE PROPOSED ACTIONS

a. In Section 1.3.1.1 (page 1-5), the East Gate Work Camp is described as having been approved prior to the RTR-S proposals that prompted the previous DEIS and FEIS (as indicated by an asterisk [*]). This is incorrect, as the East Gate Work Camp project was one of the proposals which prompted the DEIS and FEIS.

b. In Section 1.3.1.2 (page 1-5), the Air Quality Permit for the Church's portable gravel crusher should have been accompanied by an asterisk [*], indicating that it was approved prior to the DEIS and FEIS.

c. In Section 1.3.1.4 (page 1-6) the Big Spur Campground/Trailer Court should have been accompanied by an asterisk [*], indicating that it was approved prior to the DEIS and FEIS.

Box 5000, Corwin, Montana 59030-5000

2. COMMENTS ON CHAPTER 2 - ALTERNATIVES

a. The following mitigation measure is proposed in Section 2.2.3 (page 2-3): **"Develop in cooperation with the DFWP a catch and release for Yellowstone Cutthroat Trout during annual conference (proposed change from existing policy of one fish per fisherman)."**

This proposed mitigation measure is not adequately supported with factual data or analysis indicating that any adverse impact has occurred or will occur on the Yellowstone Cutthroat Trout population in Mol Heron Creek as a result of the annual summer conferences held by the Church. In addition, the proposed mitigation measure does not follow from the analysis of environmental impacts included in Section 4.2.2.3 (page 4-15), which states as follows: "The DFWP should evaluate the need for enacting fishing restrictions for Mol Heron Creek during Church conferences. These could include a catch and release only for Yellowstone cutthroat trout to protect this species. The use of bait and barbed hooks by visitors could be prohibited." To date, the DFWP has not made any findings on the need for such restrictions.

We therefore recommend that the proposed mitigation measure be changed to read as is currently provided in Paragraph 2(k) of the Mitigation Plan Agreement between the Church and the Department (FEIS, pages 348-349), as follows: **"The Church agrees to cooperate with DFWP, to the extent allowed by law and deemed appropriate or necessary by DFWP, to establish a catch-and-release program and/or to implement other fishing regulations for the upper section of Mol Heron Creek during those times of year when the Church's outdoor conferences are held."**

The mitigation measure as stated in the FEIS is adequate because it recognizes the ability of the Department of Fish, Wildlife and Parks (DFWP) to regulate fishing in Mol Heron Creek and elsewhere as it deems appropriate or necessary. The proposed mitigation measure included in the DSEIS is not justified because the DFWP has not determined that such a restriction is necessary and because it unfairly discriminates against Church members, since the general public would be able to fish in the creek at the same times without this restriction. Enforcement of such a restriction would be difficult or impossible due to the lack of legal authority by the Church and the need for law enforcement authorities (i.e., game wardens) to identify a potential violator as a Church member or conferee, as opposed to a member of the general public.

We recommend that no changes be required in this policy except by fishing regulations implemented by the DFWP that apply to everyone regardless of religious affiliation. The Church would not object to the adoption of reasonable fishing regulations by the DFWP covering Mol Heron Creek, if needed, that apply equally to all persons.

b. The following mitigation measure is proposed in Section 2.2.3 (page 2-3): **"Use of a lagoon for final treatment of wastewater at Golden Age Village."**

This is based upon the analyses of environmental impacts as contained in Sections 4.2.3.6 (page 4-34) and 4.2.3.8 (page 4-37). We disagree with the environmental analyses and the proposed mitigation measure. The necessity for this proposed mitigation measure is being addressed in separate written comments from William E. Smith, P.E. and Jeffrey G. McNabb, P.E. of the Church's Engineering Department.

c. The following mitigation measure is proposed in Section 2.2.3 (page 2-3): **"Replacement of the Blue House Kitchen drain field in an area outside the 100 year flood plain."**

No data or analysis has been included in the DSEIS to indicate that the Blue House kitchen drain field is located inside a 100-year flood plain. In Section 4.2.3.7 (page 4-36) it is stated that "If the septic drain field lies within the 100 year flood plain, replacement with a system outside the plain should be considered as a mitigating measure. The location of the flood plain should be determined from estimates of the 100 year flood volume, surveyed stream cross-sections, and an appropriate water-surface profile model." (See also separate comments from William E. Smith, P.E. and Jeffrey G. McNabb, P.E. of the Church's Engineering Department.)

Therefore, we recommend that the proposed mitigation measure be revised to read as follows:

"Replacement of the Blue House Kitchen drain field in an area outside the 100 year flood plain, if engineering data and analysis indicate that the drain field as proposed is located inside the 100-year flood plain of Trail Creek." (Addition underlined.)

d. The following mitigation measure is proposed in Section 2.2.3 (page 2-3): **"The geothermal well drilled to tap the aquifer serving LaDuke Hot Spring will only be used in accordance with the terms and conditions of the Certificate of Water Right issued by DNRC until a change in point of diversion and place of use is authorized for Church's LaDuke Hot Spring Water Right by the DNRC under Montana Law."**

While the DSEIS acknowledges the Church's existing water right to the geothermal well and the findings of a USGS study indicating that use of the well at rates up to 143 gallons per minute "would pose no risk of adverse effects on thermal features in Yellowstone National Park" (Section 4.2.3.9, page 4-40), it does not recognize several of the procedures under state law through which further use of the well can be legally established. The mitigation measure refers only to "a change in point of diversion and place of use" authorized by the Department of Natural Resources and Conservation (DNRC).

This appears to be in conflict with the provisions of Montana Water Law and the statutory prerogatives and duties of the DNRC, as well as the Church's substantive property rights. We therefore recommend that the proposed mitigation measure be revised to read as follows:

"The geothermal well drilled by the Church will only be used in accordance with the terms and conditions of the Certificate of Water Right issued by the DNRC or any revisions thereto that do not exceed 35 gpm or 10 acre-feet per year until an authorization for a change in the point of diversion and place of use for existing LaDuke Hot Spring water rights and/or a permit for a new water right is issued by the DNRC." (Additions underlined.)

e. The following mitigation measure is proposed in Section 2.2.3 (page 2-4): **"Development of Church guidelines for building heights in conjunction with state building code laws; design criteria for building color, roof line and building placement; and use vegetation in shelter belts to make development more compatible with the surrounding environment."**

Who is to determine exactly what these guidelines will be beyond what is currently required by the state building code laws? Will the guidelines be compatible with any standards that may subsequently be adopted by local government for this area of Park County? It seems that little benefit will be gained if the Church is required to implement arbitrary restrictions, but other adjacent landowners and neighbors are not.

As envisioned, this mitigation measure seems to fall into the province of landowner preference or future county planning and zoning. As stated in Section 4.2.7.3 (page 4-50), "Cumulative impacts from any unsightly development will continue from any other development in the county, including non-Church properties, until regulations or policies are adopted by the county to manage such development."

We therefore recommend that the proposed mitigation measure be designated as one that is "recommended for consideration" [*].

f. The following mitigation measure is proposed in Section 2.2.3 (page 2-5): **"Assist the county in paving and widening the county road from the Ranch Office to Ranch Headquarters."**

The Church does not have the authority to pave or widen the county road from the Ranch Office to Ranch Headquarters and Park County has not indicated that it would be willing or able to undertake such a project. Implementation of the mitigation measure is therefore out of the Church's control. The Church would be willing to participate in a road improvement project by providing the same kinds of assistance that are currently provided on a cooperative basis with Park County (i.e., gravel materials and participation in construction with equipment operation such as hauling, grading, rolling and watering).

We therefore recommend that the proposed mitigation measure be designated as one that is "recommended for consideration" [*], and that it be revised to read as follows:

"Assist the county in paving, widening or improving the county road from the Ranch Office to Ranch Headquarters by providing gravel materials and participating in construction with equipment operation such as hauling, grading, rolling and watering, if desired and approved by Park County." (Additions underlined.)

g. The following mitigation measure is proposed in Section 2.2.3 (page 2-5): **"Assist the state and county in replacing the Corwin Springs Bridge."**

As is the case with the county road, the Church does not have the authority to replace the Corwin Springs Bridge and neither Park County nor the Montana Department of Transportation (MDOT) have indicated that they are willing or able to undertake such a project. Implementation of the mitigation measure is therefore out of the Church's control. The Church would be willing to participate in such a project by providing the same kinds of assistance that can be provided in a road improvement project.

In addition, it appears that a semicolon and the word "or" were inadvertently deleted from the end of this sentence as printed in the DSEIS. As stated in paragraph numbered 4 of Section 2.3.5 (page 2-9), the intention of this mitigation measure is that "under alternative 3, a resolution could be reached among the Church, Yellowstone National Park, Park County, and Gardiner regarding routing of heavy truck traffic through Gardiner and the Park, or alternately, the Corwin Springs bridge could be improved or replaced in the future with the Church's assistance." (Emphasis added.)

Also, there are other options available to full replacement of the bridge, including upgrading or rehabilitating the existing structure (see DEIS, page 113).

We therefore recommend that the proposed mitigation measure be designated as one that is "recommended for consideration" [*], and that it be revised to read as follows:

"Assist the state and county in replacing, upgrading or rehabilitating the Corwin Springs Bridge, by providing the same kinds of assistance that can be provided in a road improvement project, if desired and approved by Park County and the Montana Department of Transportation; or" (Additions underlined.)

h. The following mitigation measure is proposed in Section 2.2.3 (page 2-5): **"Participate in a voluntary resolution process among Park County, Gardiner Residents, Yellowstone National Park and the Church for alternate routing for truck traffic through Gardiner (and specifically across the school parking lot)."**

As previously noted, this proposed mitigation measure is intended to be viewed as an alternative to the Church's assistance in a replacement, upgrading or rehabilitation of the Corwin Springs Bridge.

We believe that a voluntary resolution process for routing truck traffic through Gardiner would be a positive step. However, the Church has no way of insuring that the other parties would be willing to participate in such a process, and it has no way of controlling the actions of truck drivers not employed by it. The Church is not responsible for all truck traffic being routed through Gardiner. The resolution process would work best if the solutions are put into the form of enforceable traffic regulations that are clearly posted and that apply equally to all truck drivers. Although the Church long ago instituted measures that prevent use of the school parking lot in Gardiner by its own trucks, full implementation of the mitigation measure is out of the Church's control.

We therefore recommend that the proposed mitigation measure be designated as one that is "recommended for consideration" [*], and that it be revised to read as follows:

"Participate in a voluntary resolution process among Park County, Gardiner Residents, Yellowstone National Park and the Church for alternate routing for truck traffic

through Gardiner (and specifically across the school parking lot) that will result in the adoption of enforceable traffic regulations by Park County that are clearly posted and that apply equally to all truck drivers." (Addition underlined.)

i. The following statement is made in Section 2.3.4 (page 2-8) under the heading, "Irreversible and Irretrievable Commitments of Environmental Resources": **"In the short-term, more land would be committed to development under current proposals than under the proposals examined at the time of the SEIS."**

This statement appears to contain a typographical error. The statement should have referred to the FEIS rather than to the SEIS.

j. The following statement is made in Section 2.3.4 (page 2-9) under the heading, "Irreversible and Irretrievable Commitments of Environmental Resources": **"...impacts of geothermal development, may constitute an irreversible/irretrievable commitment.... Should that part of the Church's development plan be pursued and properly approved by DNRC, the extraction of heat from the water would constitute an irretrievable and irreversible commitment of resources."**

This statement would be true only if the extraction of heat from the geothermal water would result in a permanent depletion of the heat source in the earth that is heating the underground water. The development of geothermal energy is generally considered to be a "renewable resource" because the heat source in the core and mantle of the earth is vast and is constantly being transferred or vented to the surface in a circulatory hydrothermal system. There is no data to indicate that this heat source would be depleted more rapidly than the natural cooling of the earth as a result of the extraction of heat from geothermal water at or near the surface.

In a hydrothermal system, cold water precipitated at the surface percolates to great depths where it is heated by hot rocks or a magma source. The heated water becomes less dense and is buoyed to the surface through fractures and/or transmissive formations where it is discharged or mixed with shallow groundwaters. The system is constantly "circulating" and transferring heat in this manner. Extraction of heat from the water in LaDuke Hot Spring or the Church's geothermal well would not be an irreversible or irretrievable commitment of resources because (1) if not extracted for beneficial use at or near the surface by an appropriator, the heat will be dissipated into the atmosphere, surface waters or shallow groundwaters anyway, and (2) as soon as heat extraction is terminated the underground waters will be reheated by circulation of the hydrothermal system in the earth.

This is a different issue from the question of possible impacts to Yellowstone Park thermal features.

k. Except as modified by the comments set forth above relating to alternatives and mitigations, the Church is in agreement with the Department's preferred alternative to approve the proposed actions with a Mitigation Plan and Recommendations.

3. COMMENTS ON CHAPTER 3 - CURRENT ENVIRONMENTAL CONDITIONS.

a. The following statement is made in Section 3.2.2.2 (page 3-15) under the heading, "Activities in the Mol Heron Drainage/Post Cleanup Disposition of Fuel and Tanks": **"The fuel which was not sold or used is being stored in 'frac tanks' at the Ranch Headquarters, RTR-S. The Church hopes to keep the 14-16,000 gal. tanks at that location until it receives permission from the DHES to install new tanks at the shelter."**

The Church has recently decided to return ten of the fourteen tanks to the owner within the next few months. Four of the frac tanks will still be maintained for storage of the remaining diesel fuel at the Ranch Headquarters site.

b. The following statement is made in Section 3.3.1.3 (page 3-20) under the heading "Wildlife/Elk": **"Information on elk presented in the EIS (DHES 1988:12-14) suggested that the Church owns between 30 and 35 percent of elk winter range...."**

This statement is misleading because it refers only to the elk winter range for the Yellowstone Park northern herd that is located outside of the park, and it includes the OTO Ranch property which is no longer owned by the Church. The Church's property constitutes a much smaller percentage of the total winter range available to the northern herd, both inside and outside the park.

According to a study by Douglas Houston (1982), there are about 205,000 acres of winter range for the northern elk herd inside the park and 42,000 acres outside. However, recent estimates by the DFWP show that winter range outside the park has expanded to a total of about 67,200 acres. Therefore, approximately 75 percent of the winter range is located inside the park and 25 percent outside.

Over half of that 25 percent of the winter range that is outside the park is National Forest or other public lands. By Houston's accounting the Royal Teton Ranch owns only 18.6 percent of the range outside the park and only 4.6 percent of the total winter range for the northern Yellowstone elk herd (both inside and outside the park). This is in terms of acreage.

However, according to a more recent study, a smaller percentage of the northern elk herd actually uses the winter range on the Church's 12,000 acres west of the river. John Vore, a Montana State University graduate student, conducted a radio collar study of the migration patterns of the northern herd (1983-87). His data show that about 90 percent of the elk that migrate north of the park travel on the east side of the Yellowstone River. Since only 20 to 30 percent of the elk in the northern herd typically leave the park (Houston) and only 10 percent of those travel on the west bank, only two to three percent of this herd actually use the RTR-S.

c. The following statement is made in Section 3.3.1.3 (page 3-20) under the heading "Wildlife/Pronghorn Antelope": **"Recent research by Lee et al. (1992) has found that Yellowstone antelope carry a unique genetic element, mtDNA haplotype 'J', an attribute which may qualify the herd for protection as a unique threatened population under provisions of the Endangered Species Act of 1973."**

This is a very speculative statement. It should be added that, as of this date, no formal process has been started for attempting to list this herd of Pronghorn Antelope as a threatened or endangered species. Officials of the U.S. Fish and Wildlife Service should be consulted to determine if there is a substantial basis for listing a subgroup of an otherwise plentiful species such as Pronghorn Antelope based upon DNA typings alone. We have been informed that groups of Pronghorn Antelope and other similar species commonly exhibit minor DNA variations from one area to the next as a normal occurrence that has little significance in terms of the Endangered Species Act.

d. The following statement is included in Section 3.3.1.3 (page 3-25) under the heading "Wildlife/Bald Eagles": **"Three dead eagles have been recovered from this area (Mol Heron drainage) since the original EIS (McEneaney pers comm), two bald and one golden. Three eagle mortalities are compelling evidence of simultaneous heavy use by and heavy risk for eagles in the Mol Heron."**

It should be noted that only one of the dead eagles was found in the Mol Heron drainage. Of the other two, one was found in Cinnabar Creek and the other in Cinnabar Basin. Neither of these were on the Church's property. (McEneaney personal communication.)

e. The following statement is made in Section 3.3.3.5 (page 3-40) under the heading, "Upper Yellowstone River Water Resources/Mol Heron Site": **"In 1988 fires in Yellowstone National Park burned about 0.8 square miles in the upper Mol Heron Creek drainage. The burned area constitutes less than 2 percent of the total drainage of Mol Heron Creek."**

This calculation appears to be in error. The statement is previously made on page 3-40 that "Mol Heron Creek drains an 18.1 square mile basin." It appears that the burned area of .8 square miles constitutes a total of approximately 4.4 percent of the total drainage of Mol Heron Creek (.8 sq. mi. divided into 18.1 sq. mi. equals 4.4 percent).

f. The following statement is made in Section 3.3.3.8 (page 3-49) under the heading "LaDuke Hot Spring/ Development of the Well": **"If the Church decides to**

develop the well it will need the following government permits and authorizations:

"1. 'Change In Place of Use' Authorization (DNRC) - This will be for changing the present listed use of the water right

"2. Montana Pollutant Discharge Elimination System Permit [MPDES] (DHES)...."

This information is incomplete and misleading because it overlooks the statutory prerogatives and duties of the DNRC to issue permits for water rights and to issue Water Right Certificates for appropriations of up to 35 gpm (not to exceed 10 acre-feet per year). Both of these options are possible in the case of the Church's existing geothermal well.

We therefore recommend that the statement be revised or clarified to provide as follows:

"If the Church decides to develop the well in excess of 35 gpm or 10 acre-feet per year it will need the following government permits and authorizations:

"1. 'Change In Place of Use' Authorization (DNRC) - This will be for changing the present listed use of the water right; and/or

"2. Permit for a New Water Right (DNRC) - This will be for appropriating a new water right in lieu of or in addition to changing the present use of the water rights at LaDuke Hot Spring;

"3. Montana Pollutant Discharge Elimination System Permit [MPDES] (DHES)...." (Additions underlined.)

g. The following statement is made in Section 3.3.6.3 (page 3-60) under the heading, "Botanical Resources/East Gate and Spring Creek Headquarters Sites": **"The natural vegetation at Spring Creek Headquarters Site is shrub steppe and is included as part of the elk northern winter range described by Houston (1982)."**

It should be noted here that very little, if any, of the area which will constitute the Spring Creek Headquarters consists of native prairie. Almost all of the site is irrigated land upon which alfalfa and other hay and grass crops have been cultivated for many decades.

h. The following statement is made in Section 3.3.8.2 (page 3-65) under the heading, "Air Quality/Existing Conditions": **"Fugitive dust from traffic on gravel roads can be a long-term problem and needs to be addressed by the Community. Carlo Cieri, Park County Commissioner, stated that the community has concerns about the dust from the Trail Creek Road and Glastonbury South Road."**

In the Fall of 1992 the Church voluntarily implemented a program of dust suppression on approximately 4.4 miles of gravel roads within and leading to the Community of Glastonbury, including the main entrance roads into Glastonbury South (Dry Creek Road) and Glastonbury North (intersection with Trail Creek Road). This has included the addition of gravel and binder on sections of road together with the application of Sodium Lignosulfonate (Lignin) as a dust suppressant and roadbed stabilizer. Approximately 2.0 miles of county road were treated with Lignin at no cost to Park County. See the following table for details:

TABLE 1

Road Name	**Owner**	**Gravel/ Binder Added**	**Lignin Treatment by by Church**
Dry Creek Road	Park County	2.0 mi. by County	1.8 mi.
Capricorn Drive	Church	2.1 mi. by Church	2.0 mi.
Sirius Drive	Church	.3 mi. by Church	.3 mi.
Aries Road	Church	.3 mi. by Church	.3 mi.

i. The following statement is made in Section 3.3.10.1 (page 3-72) under the heading, "Land Use/Public

Issues": **"Prior to Church purchase of the RTR-S, the property was basically open space."**

This statement is somewhat misleading in that it fails to recognize the extensive development and facilities that existed on the Church's property earlier in the century. For example, in the Findings of Fact, Conclusions of Law, and Order (page 11) issued by the Montana First Judicial District, Cause No. BDU-89-261, concerning the DEIS and FEIS, the court found as follows: "Testimony at hearing indicated that the Royal Teton Ranch property has been the site of extensive usage and habitation in the 19th and 20th centuries. These uses include the former towns of Aldridge and Electric, the present town of Corwin Springs, various commercial activities associated with the former coal developments, farming, ranching, and dairy production, timber production, schools, churches, and houses."

j. The following statement was made in Section 3.3.10.1 (page 3-73) under the heading, "Land Use/East Gate Work Camp/Spring Creek Headquarters": **"Non-Church development in the narrow valley includes dispersed residences on the east side of the River, some farming and grazing, primarily for horses. The Church developments are the densest population centers in the general area, with the exception of Gardiner."**

The description of the existing development in the area as "dispersed residences" is somewhat understated. For example, information in the DEIS (pages 117-118) from approximately 1987 indicated that there were a total of 119 dwellings on 1,618 acres of private land other than the Church's in the Corwin Springs area, resulting in a housing density of approximately 13.6 acres per dwelling. Quite a few additional dwellings have been added to this area off Church property since 1987.

We recommend that a more complete description be given of the existing development around the Church's property and in and around the town of Gardiner in juxtaposition to the Church's proposed projects.

k. The following statement is made in Section 3.4.8.2 (page 3-92) under the heading, "Human Health/EPCRA Compliance": **"The Church has not filed any information**

with the State Emergency Response Commission (SERC) indicating it has reportable quantities of hazardous substances on its properties in Park County....The Church's present storage of vehicle and heating fuel, and possibly agricultural products, would indicate a need to report at least one or more of these substances."

The Church is presently preparing to voluntarily file information with the State Emergency Response Commission based upon this recommendation (subject to applicable exemptions, such as for agricultural products and threshold quantities).

l. The following statement is made in Section 3.4.9.3 (pages 3-94 to 3-95) under the heading, "Quantity and Distribution of Employment/Existing Conditions: Church Employment": **"Church employees are involved in the following activities:**

...
·Ranch kitchen restaurant...
·Campgrounds, support and maintenance...
·General store - retail operations..."

These activities are not carried out by Church employees but by employees of Lanello Reserves, Inc.

m. The following statement is made in Section 3.4.11.2 (page 3-102) under the heading, "Demands for Government Services/Fire Protection": **"The Emigrant-Chico-Pray volunteer fire department is no longer active. According to the Church, it has been informed that members of the former volunteer group have recently organized a subscription fire department which will include new equipment, a fire hall, and 23 volunteers."**

In addition, the statement is made in Section 4.3.9.2 (page 4-67) that **"Glastonbury properties, including Golden Age Village, are not served by a rural volunteer fire district, but a subscription department is being initiated....Fire protection service for Golden Age Village would be from the subscription department."**

This fire department is now in the process of reorganizing into a tax-based Fire Service Area with the support of the Park County Commissioners. The service area will cover Glastonbury and the Golden Age Village.

Information about this new Fire Service Area should be ascertained from Park County.

n. The following statement is made in Section 3.4.11.4 (page 3-110) under the heading, "Roads and Traffic/Golden Age Village": **"The private access road is being rerouted through the Story Ranch and requires county approval of a boundary line readjustment."**

Park County has approved the creation of a separate parcel consisting of 14.004 acres across which the road will be routed, according to Certificate of Survey No. 1173 (copy enclosed). The use of this parcel is limited to "utility sitings, easements, parking lots, parks, gravel pits and ski lifts, provided no structure requiring water or sewage be erected on the parcel." The Church has acquired the parcel from the Story Ranch and is planning construction of the road for 1993.

o. The following statement is made in Section 3.4.11.4 (page 3-114) under the heading, "Roads and Traffic/Other Church-Affiliated Sites/Transportation Data": **"Dry Creek road, which is county-maintained, has had substantial traffic increase since the development of Glastonbury South....The County indicates that road maintenance is now required on at least a monthly basis. (Cieri, pers. comm.)"**

The frequency of maintenance required on the Dry Creek Road is overstated here. The county employee who is assigned to maintain the road (Mike Flanagan, Gardiner) states that the road was graded three times last year. See enclosed comments from Robert Beese, the Church's road superintendent. Maintenance will be required on a less frequent basis in the future since the Church has started applying a Sodium Lignosulfonate treatment on the road at its own expense (see also comments in 3(h) and Table 1 above and 4(g) below).

4. COMMENTS ON CHAPTER 4 - ENVIRONMENTAL IMPACTS

a. The following statement is made in Section 4.2.2.4 (page 4-18) under the heading, "Aquatic Life and Habitats/Cumulative Impacts": **"Increased growth of the Church, which is probable given current patterns, may result in increased food supply needs. Increases in**

livestock populations and agricultural activity to serve these needs may result in more grazing activity and water diversions, respectively, which will further degrade aquatic habitat."

This assertion is highly speculative and somewhat illogical. The Church's management of its agricultural property is based upon carrying capacity and economic factors, like any other farmer or rancher. In addition, the Church abides by the terms of an SCS compliance plan for highly erodible soils and wetlands, an SCS grazing and range management plan for its property and U.S. Forest Service grazing allotment restrictions, and has agreed to use "best available management practices in all aspects of agricultural production" in the existing Mitigation Plan Agreement (FEIS, pages 349-350).

b. The following statement is made in Section 4.2.6.3 (page 4-42) under the heading, "Botanical Resources/Spring Creek Headquarters Site/Primary and Secondary Impacts": **"According to the FEIS (Montana DHES 1989), approval of the Spring Creek Headquarters would result in disturbance to about 109 acres of shrub steppe habitat on the bench site above the Yellowstone River."**

See comments in 3(g) above. The Spring Creek site involves a total of only 75 acres, plus several more acres for the lagoon and potable water reservoir sites. Only a very small percentage of this, if any, consists of native prairie.

c. The following statement is made in Section 4.2.6.5 (pages 4-47 and 4-48) under the heading, "Suggested Mitigation Recommendations for Botanical Resources": **"Some recommended specific mitigation measures are listed below: ...c. If additional seed is necessary, the Church could collect seeds from the project site prior to construction. Seeds from the project are often closely adapted to the particular environmental conditions."**

As previously stated, little if any native prairie vegetation remains at the Spring Creek, Golden Age Village, or Mol Heron shelter sites. These areas have all previously been converted to irrigated crop lands or improved pastures and are vegetated with non-native species. In addition, most of the vegetated areas remaining on the project sites after construction will be irrigated lawns and landscaped areas. Native prairie plants are not well adapted to these kinds of applications.

Native varieties would be adapted best for areas that are to be returned to uncultivated, unirrigated open space use after disturbance is reclaimed.

d. The following statement is made in Section 4.2.7.1 (page 4-49) under the heading, "Aesthetics/East Gate/Ranch Headquarters/Ranch Office/Spring Creek": **"...[V]isual impacts would be primarily those associated with Spring Creek since there is no construction required for East Gate....[S]ome of the development would be seen from the highway. Coming from south to north, the development will appear to be right at the base of Devil's Slide....Mitigation measures for visual impacts could include requirements for the Church to establish development guidelines for building heights, design criteria (building color, roof line and building placement) and vegetation.... Mitigation could include requirements for fast-growing shelter belts on the south end of the development which would eventually partially block the view from the highway."**

See comments in 2(e) above. While the Spring Creek development may be glimpsed from a few places along U.S. Highway 89, the primary attribute of the location is that most improvements should be hidden from public view for most of the way. Notably, little of the Spring Creek site is visible from the LaDuke Picnic Area or the Devil's Slide Viewing Area along the highway. The limited view of the site coming from south to north (leaving Yellowstone Park) is much less significant than it would be coming from north to south (entering Yellowstone Park). In each event, visitors will have just seen or will be about to see the townsite of Gardiner either just after leaving or just before entering the park. The limited view of the Church's headquarters facilities should be of small impact by comparison.

Shelterbelts on the south end of the site are an attractive idea and will likely be pursued. However, we are not aware of any "fast-growing" varieties that will survive the harsh winters in this area year in and year out. Our experience has shown that only certain varieties of trees will survive in this area for the long term and none of these are particularly fast growing. In addition, fast-growing varieties generally tend to be shorter lived. If any specific recommendations could be made we would be interested.

e. The following statement is made in Section 4.2.9.2 (page 4-52) under the heading, "Historical and Archaeological Sites/East Gate/Site 24PA757": **"The long term mitigation of cumulative effects would involve consideration of the structural rehabilitation of the old plunge building."**

Structural rehabilitation may not be practically or economically feasible for the old plunge building. We recommend that photographic preservation be considered as a more viable alternative.

f. The following statement is made in Section 4.3.3 (page 4-57) under the heading, "Access to and Quality of Recreational and Wilderness Activities": **"Other recreational experiences, such as river floating and fishing, may also be indirectly impacted by the proposed development. Impacts would include appearance of the less visible area as more developed. Although the existing and proposed sites are in general less visible from the river than from the highway, many visitors' first visual experience of the proposed development would be from the highway and may affect a decision to recreate on this portion of the river."**

No data has been presented to indicate that any portion of the Spring Creek Headquarters facilities will be visible from the Yellowstone River. In fact, very little if any of it will be. East Gate, the Ranch Office and the Ranch Headquarters are already in place and seem to have little if any impact on the decision of visitors to recreate on this portion of the river. What is far more visible from the river for fishermen and floaters are the many houses, barns, garages, satellite dishes, corrals, etc. off Church property that line the river almost without interruption from Gardiner to Yankee Jim Canyon (see also comments in 3(i) above). These do not seem to have had a terribly detrimental effect on the decision of recreationists to use the river either.

g. The following statement is made in Section 4.3.9.4 (page 4-72) under the heading, "Roads and Traffic/ Cumulative Impacts": **"Of particular concern is Dry Creek Road, which almost exclusively serves the Glastonbury properties, but is publicly maintained."**

See comments in 3(h) and 3(o) above and the enclosed comments from the Church's road superintendent, Robert Beese. The Church has participated in maintenance activities for this road and has implemented a dust control and road stabilization treatment program at its own expense. The only county roads that are affected by Glastonbury traffic are the Dry Creek Road, about one-half mile of the road running south from Emigrant, and a few hundred feet of the Trail Creek Road. The tax revenues from Glastonbury are substantial and should be adequate to pay for maintenance.

Please include these comments and enclosures in the public record for the DSEIS and give them due consideration.

Very truly yours,

CHURCH UNIVERSAL AND TRIUMPHANT, INC.

Edward L. Francis
Vice President and Business Manager

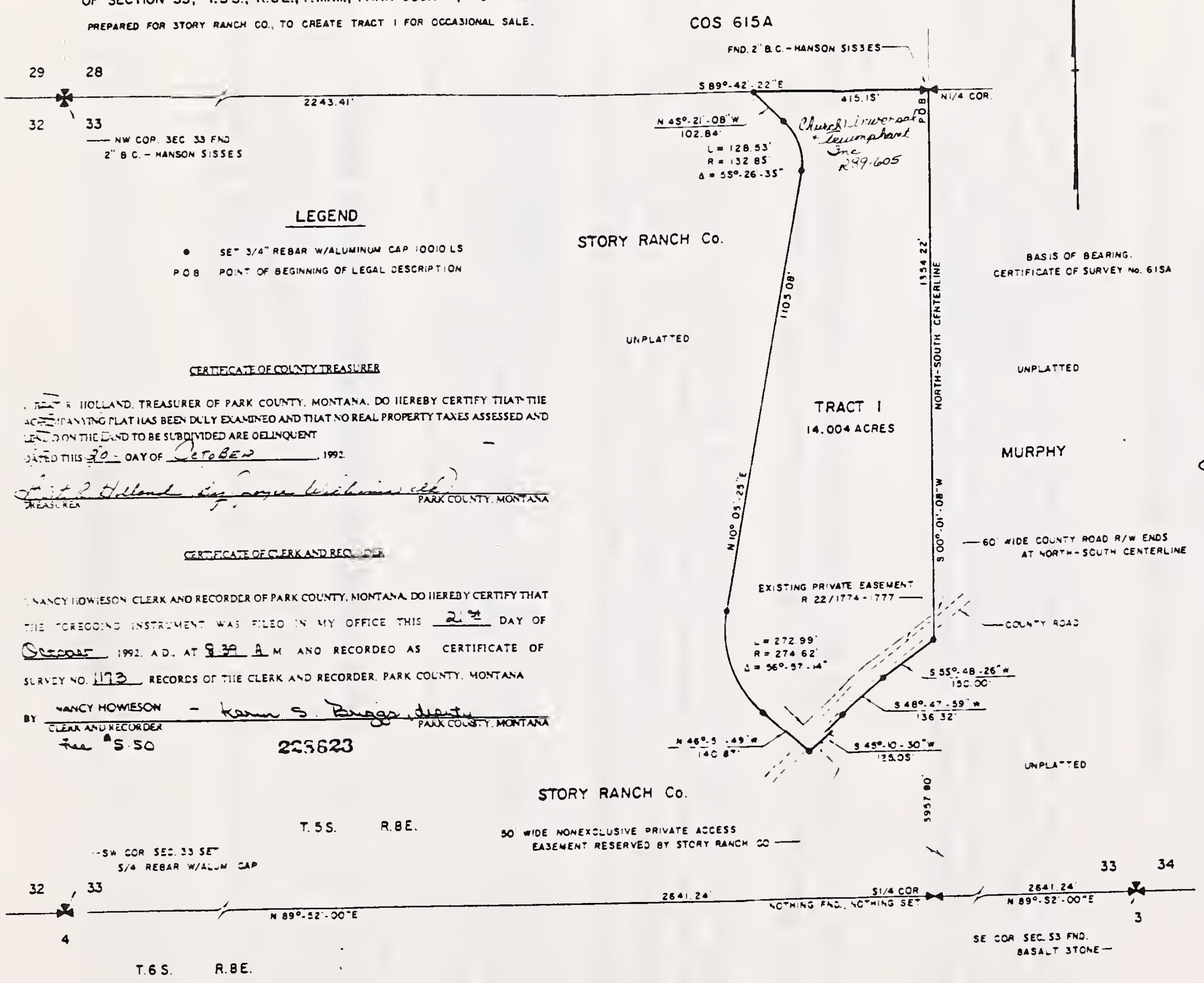
ELF:tcb

Enclosures

C/S 1173

CERTIFICATE OF SURVEY

A TRACT OF LAND BEING A PORTION OF THE NW1/4
OF SECTION 33, T.5S., R.8E., P.M.M., PARK COUNTY, MONTANA
PREPARED FOR STORY RANCH CO., TO CREATE TRACT 1 FOR OCCASIONAL SALE.



LEGEND

● SET 3/4" REBAR W/ALUMINUM CAP 10010 LS

P.O.B. POINT OF BEGINNING OF LEGAL DESCRIPTION

CERTIFICATE OF COUNTY TREASURER

I, [illegible] R. HOLLAND, TREASURER OF PARK COUNTY, MONTANA, DO HEREBY CERTIFY THAT THE ACCOMPANYING PLAT HAS BEEN DULY EXAMINED AND THAT NO REAL PROPERTY TAXES ASSESSED AND LEVIED ON THE LAND TO BE SUBDIVIDED ARE DELINQUENT

DATED THIS 20 DAY OF OCTOBER 1992

R. Holland by Joyce Wilhelmi dep.

TREASURER PARK COUNTY, MONTANA

CERTIFICATE OF CLERK AND RECORDER

I, NANCY HOWIESON CLERK AND RECORDER OF PARK COUNTY, MONTANA, DO HEREBY CERTIFY THAT THE FOREGOING INSTRUMENT WAS FILED IN MY OFFICE THIS 21st DAY OF October 1992, A.D., AT 8:39 A M AND RECORDED AS CERTIFICATE OF SURVEY NO. 1173 RECORDS OF THE CLERK AND RECORDER, PARK COUNTY, MONTANA

BY NANCY HOWIESON - Karen S. Briggs, deputy

CLERK AND RECORDER PARK COUNTY, MONTANA

Fee $5.50

225623

CERTIFICATE OF SURVEYOR

I, GERALD P. DUBIEL, THE UNDERSIGNED, A REGISTERED LAND SURVEYOR, DO HEREBY CERTIFY THAT DURING AUGUST 1992, I SURVEYED CERTIFICATE OF SURVEY AND PLATTED SAME AS SHOWN ON ACCOMPANYING PLAT AND AS DESCRIBED IN ACCORDANCE WITH THE PROVISIONS OF THE MONTANA SUBDIVISION AND PLATTING ACT, SECTION 76-3-101 THROUGH 76-3-614 M.C.A. AND THE PARK COUNTY SUBDIVISION REGULATIONS

DATED THIS 19th DAY OF October 1992

Gerald P. Dubiel

GERALD P. DUBIEL MONTANA REGISTRATION NO. 10010

CERTIFICATE OF GOVERNING BODY

I, CARLO CIERI, CHAIRMAN OF THE BOARD OF COUNTY COMMISSIONERS, DO HEREBY CERTIFY THAT THE ACCOMPANYING CERTIFICATE OF SURVEY HAS BEEN DULY REVIEWED BY THE GOVERNING BODY, AND HAS BEEN FOUND TO CONFORM TO THE SUBDIVISION AND PLATTING ACT, SECTION 76-3-101 ET. SEQ. M.C.A. AND THE PARK COUNTY SUBDIVISION REGULATIONS.

DATED THIS 21 DAY OF October 1992

Carlo C

CHAIRMAN BOARD OF COUNTY COMMISSIONERS

LEGAL DESCRIPTION—TRACT 1

TRACT 1: A TRACT OF LAND LOCATED IN THE NORTHWEST ONE-QUARTER OF SECTION 33, TOWNSHIP 5 SOUTH, RANGE 8 EAST, PRINCIPAL MERIDIAN MONTANA, PARK COUNTY, MONTANA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

POINT OF BEGINNING COMMENCES AT THE NORTH QUARTER CORNER OF SAID SECTION 33, T5S, R8E, P.M.M., PARK COUNTY, MONTANA; THENCE S 00°-01'-08" W ALONG THE NORTH-SOUTH CENTERLINE OF SAID SECTION 33, A DISTANCE OF 1354.22 FEET TO A POINT; THENCE S 53°-48'-26" W, A DISTANCE OF 150.00 FEET TO A POINT; THENCE S 48°-47'-59" W, A DISTANCE OF 136.32 FEET TO A POINT; THENCE S 45°-10'-30" W, A DISTANCE OF 125.05 FEET TO A POINT; THENCE N 46°-51'-49" W, A DISTANCE OF 140.87 FEET TO A POINT; THENCE NORTHEASTERLY ALONG A TANGENT CURVE WITH A RADIUS OF 274.62 FEET AND A CENTRAL ANGLE OF 56°-57'-14", A CURVE LENGTH OF 272.99 FEET TO A POINT; THENCE N 10°-05'-25" E, A DISTANCE OF 1105.08 FEET TO A POINT; THENCE NORTHWESTERLY ALONG A TANGENT CURVE WITH A RADIUS OF 132.83 FEET AND A CENTRAL ANGLE OF 55°-26'-33", A CURVE LENGTH OF 128.53 FEET TO A POINT; THENCE N 45°-21'-08" W, A DISTANCE OF 102.84 FEET TO A POINT IN THE NORTH LINE OF SAID NORTHWEST QUARTER OF SECTION 33; THENCE S 89°-42'-22" E ALONG SAID NORTH LINE, A DISTANCE OF 415.15 FEET TO THE POINT OF BEGINNING. SAID TRACT OF LAND CONTAINS 14.004 ACRES, ALONG WITH AND SUBJECT TO ALL EASEMENTS, RIGHTS-OF-WAY AND COVENANTS OF RECORD OR AS SHOWN AND ALL ACCORDING TO THE ATTACHED PLAT.

CERTIFICATE OF EXEMPTION

(TRACT 1—OCCASIONAL SALE PARCEL)

I HEREBY CERTIFY THAT THE PURPOSE OF THIS SURVEY IS TO CREATE A PARCEL LESS THAN 20 ACRES FOR AN OCCASIONAL SALE PARCEL AND THAT WITHIN THE PAST TWELVE (12) MONTHS NO PRIOR "OCCASIONAL SALE" HAS BEEN TAKEN FROM THE TRACT OR FROM CONTIGUOUS TRACTS HELD IN SINGLE OWNERSHIP AND THE TRACT FROM WHICH THE "OCCASIONAL SALE" IS TO BE TAKEN WAS NOT CREATED UNDER THE EXEMPTION FOR AN "OCCASIONAL SALE" OR AS A GIFT OR SALE TO A MEMBER OF THE IMMEDIATE FAMILY; THEREFORE THIS SURVEY IS EXEMPT ~~FORM~~ From an REVIEW AS A SUBDIVISION PURSUANT TO: SECTION 76-3-207(1)(d) (A SINGLE DIVISION OF A PARCEL OUTSIDE OF PLATTED SUBDIVISIONS WHEN THE TRANSACTION IS AN OCCASIONAL SALE), AND THE PARK COUNTY SUBDIVISION REGULATIONS.

DATED THIS 20TH DAY OF OCTOBER 1992

Peter R. Story

PETER R. STORY, PRESIDENT, STORY RANCH CO. LANDOWNER

CERTIFICATE OF EXEMPTION

(REVIEW BY D.H.E.S.)

WE HEREBY CERTIFY THAT TRACT 1 (OCCASIONAL SALE PARCEL) IS EXEMPT FROM REVIEW BY THE MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES PURSUANT TO ARM 16.16.605 (2)(e) (PARCELS USED FOR UTILITY SITINGS, EASEMENTS, PARKING LOTS, PARKS, GRAVEL PITS AND SKI LIFTS PROVIDED NO STRUCTURE REQUIRING WATER OR SEWAGE DISPOSAL BE ERECTED ON THE PARCEL.

DATED THIS 20TH DAY OF OCTOBER 1992

Peter R. Story

PETER R. STORY, PRESIDENT, STORY RANCH CO. LANDOWNER

NOTARY

ON THIS 20TH DAY OF OCTOBER IN THE YEAR 1992. BEFORE ME A NOTARY PUBLIC IN AND FOR THE STATE OF MONTANA, PERSONALLY APPEARED PETER R. STORY KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE WITHIN INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME.

Gloria Brown

NOTARY PUBLIC FOR THE STATE OF MONTANA

RESIDING AT LIVINGSTON, MT MY COMMISSION EXPIRES 8-4-95

DATED THIS 19 DAY OF October 1992

Edward L. Francis

EDWARD L. FRANCIS, VICE PRESIDENT PURCHASER
CHURCH UNIVERSAL AND TRIUMPHANT, INC.

NOTARY

ON THIS 19TH DAY OF OCTOBER IN THE YEAR 1992. BEFORE ME A NOTARY PUBLIC IN AND FOR THE STATE OF MONTANA, PERSONALLY APPEARED EDWARD L. FRANCIS KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE WITHIN INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME.

Gloria Brown

NOTARY PUBLIC FOR THE STATE OF MONTANA

RESIDING AT LIVINGSTON, MT MY COMMISSION EXPIRES 8-4-95

DUBIEL ASSOCIATES AUGUST 27, 1992
1202 W. FRONT ST., LIVINGSTON, MONTANA PROJECT No. 0037

SCALE IN FEET 0 200 400

SCALE: 1" = 200'

1/4	S	T	R	C/S	CERTIFICATE OF SURVEY No.
NW	33	5S	8E	PARK COUNTY, MONTANA	SHEET 1 of 1

MEMORANDUM

To: Edward Francis
From: Robert Beese R. B
Date: January 13, 1993

Re: DSEIS Current Conditions, Dry Creek Road

==

I would like to correct a misleading and incomplete statement found on page 3-114 of the SEIS.

In the second paragraph it states that road maintenance is required on at least a monthly basis on the Dry Creek Road serving South Glastonbury. Without stating the Church's involvement in the maintenance and the current condition of the road the picture as portrayed by Carlo Cieri is incomplete and outdated.

On January 8, 1993, I asked Mike Flanagan who operated the grader for the County how many times he had to grade Dry Creek Road last year. He told me "3 times".

The third time that the road was graded during October 1992, we had our grader, water truck and spreader truck involved in order to treat the road with sodium lignosulfonate (lignin). The Church paid for the lignin and provided the extra labor for the project. This material should stabilize and control dust on the road well into 1993.

A little background information is in order here.

When the Church arrived, the Dry Creek Road was very rocky and was graded approximately 2 times per year. The material contained some clay and was relatively stable. In an effort to improve the road Park County worked with the Church in 1987 to obtain a site for crushing on Parcel 52 at South Glastonbury. The County crushed the gravel and spread it upon the County road that summer. Since this gravel was deficient in binder it did not hold up well under the traffic. There was a period of time especially during 1989 and 1990 when it was necessary to grade the road nearly every month as stated in the draft.

Late in the summer of 1991, the County brought in some gravel with a proper proportion of particle sizes including clay binder. Since this material has been applied the problems with the Dry Creek Road have been minimal, in spite of the fact that the traffic intensity has been similar to previous years.

There have been occasions over the years that the county operator has allowed us to participate in the grading, however, this activity has not been encouraged as at the South Ranch.

In recent years we have had a standing offer with the County to provide a water truck and roller (if in the area) to assist on the maintenance of Dry Creek Road if we are given adequate advance notice. On the occasions that we have been able to participate in the maintenance the results have been dramatically better than when the water was not available.

It should also be mentioned that the Church has plowed the road in the winter after every major storm for the past 5 years in order to open the road promptly for the residents. The Church also sets up approximately 1800 feet of snow fence in the fields parallel to the county road every year to control the drifting. The Church paid for the snow fence and also must remove this fencing every spring.

Church Universal and Triumphant®

January 13, 1993

RECEIVED
JAN 14 1993
MDHES
Environmental Sciences Div.

Mr. Thomas M. Ellerhoff
Assistant Administrator
Environmental Sciences Division
MONTANA DEPARTMENT OF HEALTH
AND ENVIRONMENTAL SCIENCES
Cogswell Building
Helena, Montana 59620

Dear Tom:

I am enclosing copies of the following materials I received at a meeting of the Montana Reserved Water Rights Compact Commission held on January 6, 1993:

(1) DRAFT of January 5, 1993 of Unabridged Recommended Boundary for Controlled Groundwater Area in Montana Near Yellowstone Park prepared by The Working Group;

(2) Addendums 1 and 2 to the above Draft of January 5, 1993;

(2) Letter of January 5, 1993, to Steve Custer of Montana State University in Bozeman from Mike Sorey of the U.S. Geological Survey; and

(3) Comments dated January 4, 1993, by Irving Friedman regarding the 12/30/92 draft of report, "Yellowstone National Park Controlled Groundwater Area Boundary for Montana" by Custer, et al.

I thought you might find this useful when completing the Final Supplement Environmental Impact Statement.

Very truly yours,

CHURCH UNIVERSAL AND TRIUMPHANT, INC.

Edward L. Francis
Vice President and Business Manager

ELF:tcb
Enclosures

UNABRIDGED

RECOMMENDED BOUNDARY

for

CONTROLLED GROUNDWATER AREA IN MONTANA NEAR YELLOWSTONE PARK

Prepared for

Water Resources Division

NATIONAL PARK SYSTEM
U.S. DEPARTMENT OF INTERIOR

for presentation to:

MONTANA
RESERVED WATER RIGHTS COMPACT COMMISSION

by

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I. INTRODUCTION

The geothermal resources of Yellowstone National Park are an important national treasure which should be protected. Such protection was one of the reasons for establishment of the Park and this commitment continues today (U.S. Congress, 1992). Development of geothermal resources similar to those found in the Park have impacted surface hydrothermal features and geothermal systems in other regions of the world (eg: Allis and Lumb, 1992; Bradford, 1992; Cody and Lumb, 1992; Bjornsson and Steingrimsson, 1992; U.S. Congress, 1992; Kerr, 1991; Narasimhan and Goyal, 1984, Allis and Barker, 1982; Allis, 1981; Donaldson, 1979; Hatton, 1970; Boulton, 1970; Studt, 1958). These impacts have occurred in response to development for domestic and hotel use (Allis and Lumb, 1992; Bradford, 1992) as well as at power generation facilities (Narasimhan and Goyal, 1984; Allis and Barker, 1982). Aware of the potential for geothermal development adjacent to the Park, the Montana Reserved Water Right Compact Commission and the Water Resource Division of the National Park System are discussing the implementation of a Controlled Groundwater Area to protect the geothermal resource from impact by groundwater development outside the Park. The Controlled Groundwater Area would be promulgated under Montana water law, and would apply only to those areas adjacent to Yellowstone National Park in Montana.

A technical working group was organized to assist with definition of the boundaries of a Controlled Groundwater Area. The working group was constrained to literature-based analysis because of the short time-frame (3 months) between task identification and the deadline for recommendations. The short time frame was necessary to provide input to the 1993 Montana Legislature for consideration.

Review of the literature demonstrates that there are little hard physical data with which to describe and quantify the geothermal flow system in the Park. Even in well-known systems the high cost of monitoring wells, which may need to be thousands of feet deep limit hydrogeologic information at the resource-area margins. Data which would be required include water temperature, total head at both shallow and deep levels in both the recharge and discharge areas, measured transmissivity and storativity, as well as geologic data on subsurface stratigraphy, primary hydrogeologic units, structure, fracture location, fracture width, anisotropy and heterogeneity. Although some data exist, much of the critical data do not exist and cannot be reasonably expected in the near future. Similarly, in New Zealand, "...(there is a) large amount of data available for a relatively shallow, horizontal slice of part of the field, but very poor information on the depth dimension of the field. ... This limits the accuracy of even conceptual hydrological models of the field which usually indicate the location of an "up-flow zone" at several kilometers depth, and the location of boiling and dilution processes in "outflow zones" typically within a kilometer of the surface." (Allis and Lumb, 1992, p. 14.) The working group considered the application of numerical models to assess impacts. This approach was rejected for Yellowstone National Park because of data limitations.

A literature review was conducted for developed geothermal fields in the world where **both** an impact **and** a diameter of effect field was reported (Table 1). This data might be used to delineate a Controlled Groundwater Area Boundary. The data were limited to developments in hydrothermal-flow systems similar to that in Yellowstone Park (magmatic heat source in a bimodal caldera complex where the system is dominantly a high-temperature hydrothermal system as opposed, for example, to a vapor-dominated system) (Fournier and others 1976; Fournier and Pitt, 1985). Some problems with exact analogy exist because of the hydrostratigraphic impacts of the cratonic sedimentary package into which the Yellowstone caldera complex has intruded. Impacts from geothermal development, such as land subsidence have been reported over diameters ranging from 1 to 7 miles, pressure drops over distances from 0.5 to 10 miles and changes in heat flow and geyser activity over a distance of about one mile (Table 1).

Four points should be kept in mind when reviewing Table 1. First, subsidence is a good first estimate of impact distance, however, the pressure effects from development likely extend farther from the development center than the measured subsidence distance. Second, to conclude that any development no matter how small would produce effects at the largest distance would be incorrect. The effects reported in Table 1 resulted from high rates of water removal (5000 to more than 70,000 gpm) continuously over several years with little reinjection. Some of the effects might have been smaller if the appropriate modern practice of reinjection had been utilized. None-the-less, data in Table 1 do provide perspective regarding the distance of impact that could occur should large-scale development be contemplated. Third, diameters not radii are reported. Thus the tabulated values are conservative since the diameter of influence is twice the radius of influence. Fourth, the diameter of influence generally includes all wells in the development system. Thus, the distance to the edge of the measured impact may not be very far from the outermost extraction well. One should not conclude from data in Table 1 that a single well is responsible for the measured impact.

The literature review was supplemented by a hydrogeologically based conceptual model which used the geologic framework and hydrologic principles (Toth, 1962) to assess where impacts might be expected. This approach was based on topographic analysis (Toth, 1962). The approach does not account for the effects of changing head on the groundwater divide. Furthermore, the topographic approach has limitations in stratigraphically controlled hydrothermal-flow systems where recharge may be other than at the topographic divides, where thermal buoyancy causes water to rise. However, topographic analysis does provide a first order estimate of recharge, and stratigraphic effects can be accounted for at least conceptually.

Table 1. Maximum reported diameter of impact from developed geothermal areas described in the literature.

Impact	Distance	Location	Source
Subsidence	1.2mi	Wairakei NZ	Hatton, 1970
Subsidence	2 mi	Wairakei NZ	Hatton, 1970
Subsidence	4 mi	Wairakei NZ	Allis and Barker, 1982
Subsidence horizontal component	4.7 mi	Broadlands NZ	Narasimhan and Goyal, 1984
Pressure drop	10 mi	Tauhara NZ	Allis, 1982
Pressure drop	1.7 mi	Wairakei NZ	Allis and Barker, 1982
Pressure drop	0.5 mi	Wairakei NZ	Studt, 1958
Subsidence horizontal component	2 mi	Wairakei NZ	Narasimhan and Goyal, 1984
Subsidence	1.4 mi	Wairakei NZ	Narasimhan and Goyal, 1984
Heatflow change	1 mi	Wairakei NZ	Allis, 1979
Subsidence	7 mi	Iceland	Bjornsson and Steingrimsson, 1992
Subsidence	3.8 mi	Broadlands NZ	Narasimhan and Goyal, 1984
Subsidence/uplift	22 mi	Cerro Prieto	Narasimhan and Goyal, 1984;

Note: Cerro Prieto data may be influenced by tectonics.

The definition of a geothermal resource is of interest since this resource is to be protected. A variety of perspectives was examined ranging from the heat resource, developable heat resource, hot groundwater, the surface expression of hot groundwater (eg: hydrothermal alteration, hot ground, hot pools, hot springs, mud pots, geysers), and the tourist resource which is attracted by the surface expression of the geothermal resource. The consensus reached was that the hydrothermal-flow systems in Yellowstone National Park, parts of which extend outside the Park, constitute the geothermal resource. This approach was adopted because these flow systems form the underpinnings of all hydrothermal features and processes both surface and subsurface. Geothermal-resource protection requires that all parts of the flow system (recharge, transmission, and discharge) be carefully monitored, evaluated, and regulated if the resource inside the Park is to be protected.

Control means that groundwater withdrawal or injection be regulated where such groundwater use effects a hydrothermal system in the Park. Control does not mean that all activity would be eliminated since prohibition of all withdrawal irrespective of whether it effects the Park would be an anti-development mode. Rather, control means that inventory, monitoring and regulation would be used to assure that no impact to the Park results from use of wells in the Controlled Groundwater Area. This control (inventory, monitoring and regulation) must be exercised such that human activities outside the Park do not demonstrably impact the hydrothermal-flow systems in the Park.

The working group was encouraged by the Reserved Water Rights Compact Commission staff and Water Rights Staff of the National Park System to encompass within the Controlled Groundwater Area all regions that might reasonably be expected to influence the Yellowstone National Park hydrothermal systems so that those with groundwater activities in this region could be notified monitoring, evaluation, and the possibility of regulation. Those outside the area could expect not to be brought under control, and could expect no increased regulation under Montana law. "If there is the least doubt that an area might be part of the hydrothermal-flow system, part of which is in the Park, that area should be placed in the Controlled Groundwater Area. Unless you are absolutely certain there is no effect expected in this area, assume there is an effect" (Owen Williams, National Park Service).

The objective is to delineate a Montana Controlled Groundwater Area for the long-term protection of the hydrothermal systems in Yellowstone National Park.

II. RATIONALE USED FOR ESTABLISHING BOUNDARIES OF A CONTROL ZONE

A. System Concept

The Working Group recognizes that surface hydrothermal features of Yellowstone Park are merely the uppermost portions of several thermo-hydraulic systems driven by heat sources at depth. The system includes recharge, transmission, heating, and discharge components.

Recharge to the system begins with water which enters the shallow system either through the alluvium, through direct shallow entry into transmissive formations or through the very-near surface parts of fracture systems. Because of the large area in which recharge can occur, impact to this system is very difficult unless withdrawals are large, focused on fractures, or cumulative effects impact recharge over large areas. Not all shallow surface recharge is connected to the deep system. A small part is transmitted at depth in fractures and transmissive formations. These may be sealed from the surface at depth. Impacts to recharge may occur in these deeper transmission areas if withdrawal quantities are very large or focused on an important transmission zone connected directly to the main hydrothermal system. If data come to show that cold-water recharge is not important to recharge of the hydrothermal-flow system, then restraints on well usage should be relaxed.

When recharge water encounters the heat source, the water is heated, becomes less dense, and starts to rise. This density contrast contributes to the driving force which is responsible for near-vertical-upward flow associated with the central portion of the hydrothermal-flow system. As the hot water rises toward the surface, it commonly interacts with near-surface cold water. Surface features may develop with highly variable and changing expression of the dynamic interaction between cold and hot flow systems. Manifestations include fumaroles, hot or boiling springs, geysers, hot pools, and mud pots. The feature formed depends on heads, temperatures, self-sealing, rock water interactions, and other dynamic factors. These features typically overlie the core of the hydrothermal system. On the margins of the core, the hot water floats over more dense cold-water and overlies the cold-water recharge portion of the flow system. Warm springs are commonly found in such areas.

The shallow, cold water surroundings which receive some thermal waters are not normally connected directly to the hydrothermal system except in the zone of mixing. Discharges from springs and shallow wells, which carry a thermal signature (possibly chemical) should be regarded as a mixture of shallow, cold groundwater and hot water from a deeper thermal system, until contrary evidence is developed. Protection of the Park hydrothermal system requires that withdrawals from the flow systems outside of the Park produce no impact inside the Park. This requires that recharge to the hydrothermal system not be substantially reduced or disrupted, and that development in areas of thermal discharge from the Park not reduce heads in the hydrothermal-flow system within the Park. In principle, out-of-Park use of warm water discharged naturally from the Park could be allowed so long as the manner of capture is not projected or observed to impact the hydrothermal system in the Park.

B. BASE MAPS USED TO DRAW THE BOUNDARY

1. Topographic Base. The working group used 1:250,000 AMS topographic maps as the base. The topography (200 foot elevation contour interval) was used to estimate recharge and discharge elevations (see below).

2. Surface Hydrothermal Features. A map of the surface hydrothermal features was transferred by enlargement from White and others (1988). A map of thermal features was also produced from an Arc/Info computer file by Yellowstone National Park Geographic Information staff with the caveat that the data were incomplete in the northern part of the Park. Our research to date suggests that no single complete compilation of all surface geothermal features exists for Yellowstone Park at this time. The compilation from White and others (1988) and data from a map of hydrothermal springs in Wyoming (including Yellowstone National Park) were also used (Heasler and others, 1983) and constitute the best published data.

The thermal features are widely known to change naturally (eg: Bargar, 1978). Thus the position and even the behavior of a single feature cannot be considered constant even under natural conditions. Changes may be induced by processes such as chemical precipitation, changes in precipitation regime, changes in the rock due to earthquakes and rock fracture. Furthermore, the surface expression of the hydrothermal system at Yellowstone National Park simply represents the fringes of the rising hydrothermal-flow system. Although the surface expression of the system's edge is often what comes to mind when one thinks of the issue of protection of the geothermal resource arises as an issue, to successfully protect this resource, the total flow system rather than the surface feature should be the focus of the control activities. For this reason, the map of surface hydrothermal features and thermal springs was used primarily to estimate elevations and was used to help guide the working group with regard to reasonable recharge elevations.

3. Hydrothermal Recharge-Discharge Areas. Recharge areas for thermal water in Yellowstone Park are important to the flow system as are the discharge areas for such a system. Accurate determination of the location of such areas is extremely difficult without an inventory of hydraulic-head data, groundwater temperature data and heat-source data. In the absence of such data, a watershed analysis was utilized. The recharge elevations are probably not higher than the discharge elevations because the potential energy of the hydrothermal-flow system is dictated in part by the elevation of the recharge area. (The potential energy is dictated by the elevation of the recharge area and drives the local and regional

groundwater flow systems. Energy loss due to friction during transmission is unknown and unaccounted for, but may be balanced in part by another unknown, energy addition from buoyant forces due to heating.) A watershed map was constructed which shows the surface-water drainage divides and their relationship to the Park Boundary. Areas where surface water flows into the Park were assumed to be areas of groundwater recharge. Areas where surface water flows out of the Park were assumed to be areas of groundwater discharge. The Park Boundary is the divide between surface-water flow systems at several locations. In these areas a groundwater no-flow boundary (neither into nor out of the Park) was indicated.

There is some evidence that this approach is reasonable. Discharging thermal water in alluvial systems is known in the Yellowstone Valley and in the Madison Valley near West Yellowstone and Hebgen lake (Sonderegger and Bergantino, 1981). Thermal water is also thought to exit the Park in these areas based on geochemical arguments (Fournier and others, 1976; Friedman and Norton, 1990; Sorey, 1991). Recharge to the hydrothermal-flow system from an area to the north outside Yellowstone National Park is suggested by hydrogen isotope data (Rye and Truesdell, 1992). The current data suggests that sources capable of delivering water with this signature must occur at high elevations north of the Park.

There are at least two areas where recharge-discharge relationships based on the above criteria are highly uncertain. One is along the northern Park Boundary near where Bear Creek enters the Yellowstone River. Technically, Bear Creek forms a confluence with the Yellowstone River outside the Park. Just down stream, however, the Yellowstone River flows back into the Park and Eagle Creek also flows into the Park to join the Yellowstone. The Yellowstone again leaves the Park near Phelps Creek. The drainage divide separating inflow (recharge) and outflow (discharge) was taken to be at the Eagle Creek divide in this area. Recharge is indicated east of this divide and discharge to the west. A second uncertain area is on the west margin of the Park near where Grayling Creek leaves the Park. Here Tepee Creek enters the Park and immediately leaves the Park as part of Grayling Creek. Again, recharge was assumed until no drainages flow into the Park with the Tepee Creek drainage divide forming the recharge area boundary.

4. Madison Group Outcrop. Recharge to the hydrothermal system is probably not constrained to surface-water divides in all areas. In particular, the Mammoth Hot Spring flow system is thought to be related to flow in the Madison Aquifer (Struhsacker, 1976; Bargar, 1978; Sorey, 1991). The Madison Aquifer may also contribute water to other hot springs with travertine such as Terrace Springs near Madison Junction. Given the fact that the Madison Group is known to be important regionally and contains both dolomite and solution porosity and permeability in the area (for example, see Clarke, 1991 for a summary) the working group assumed that outcrops of the Madison Group, particularly above 6200 feet above sea level, should be considered candidates for recharge to the hydrothermal-flow system in Yellowstone

National Park. As a result, an overlay of surface outcrops of Madison Aquifer rocks was compiled from a variety of sources.

The primary sources for Madison Group outcrop data include an unpublished preliminary geologic map compilation for the Bozeman 1 x 2 degree AMS sheet. This preliminary compilation was prepared by Dr. Donald Smith at a scale of 1:125,000 in the early 1980's at the Department of Earth Sciences at Montana State University in Bozeman, MT. No such coverage is known to exist for the Ashton, Billings or Cody AMS sheets. Madison Group outcrop areas in Montana covered by sheets other than the Bozeman sheet were compiled from Lovering (1929), Ross and others (1955), Egbert (1960); Witkind (1969, 1972a, b; 1975, 1976); U.S. Geological Survey (1972 b); Prostka and others (1975); Fraser and others (1969), and Pierce (1987). Many of the primary maps provide little information on the attitude (dip and strike) of the Madison Aquifer. At a few locations, dip and strike were plotted near the outcrops on the map to provide a sense of the structural geology for the units. One must recognize that much of the geologic mapping in this region has been at the reconnaissance level, and that numerous contradictions exist in the literature regarding the precise location of the Madison Aquifer. Such problems could not be resolved in the time frame required for this project. Although positions of the Madison Aquifer are in some cases uncertain, the general position of the outcrops as depicted on the Madison Aquifer Outcrop overlay are approximately correct.

5. Alluvium. In addition, discharge occurs through alluvium. Sources for general information about alluvium include Ross and others (1955); U.S. Geological Survey (1972a); Pierce (1973); Fournier and others (1976); Friedman and Norton (1990), and Clarke, (1991); Sorey (1991). No overlay of alluvium was made, but interpretations depended on the sources listed.

6. Faults. Another significant geologic avenue for recharge and discharge is along faults. A geologic overlay of faults was created. The position of the faults is known with varying degrees of certainty, but did help guide the working group regarding the role of faults in the region. The sources are the same as those indicated above. In addition, new work and syntheses by Personius (1982), Schmidt and Garahan (1983), and Sorey (1991) were incorporated on the overlay.

III. CONTROLLED GROUNDWATER AREA BOUNDARY DESCRIPTION

A. SCALE

The scale at which the Controlled Groundwater Area Boundary is drawn is important both for practical and philosophical reasons. Common map scales exist which might serve as a base map (eg: 1:1,000,000; 1:500,000; 1:250,000; 1:100,000; 1:125,000; 1:62,500; and 1:24,000). The scale chosen depends in part upon availability. Additionally, scale influences the manageability of the boundary at meetings and for presentations. More importantly, scale impacts the map-readers' perception of boundary precision. Finally, and most importantly, scale influences how the human mind perceives the system. The working group selected a scale of 1:250,000 (1 X 2 degree U.S. Army Map Service Topographic Sheets (AMS Sheets). This scale is available as a topographic map with 200 foot contours. The scale allows presentation of Yellowstone National Park and the areas adjacent to the Park in Montana in a form that can nominally be handled as a wall or table map. This scale also represents, qualitatively, a degree of uncertainty regarding the precision of the boundary line which will be discussed subsequently.

Several other scales were rejected. The 1:24,000 scale topographic maps are not available throughout the area of interest. The 1:62,500 scale maps are currently out of print, but a few exist. This scale was explored. The assembled maps were judged too large for presentation and imply too high a degree of precision. While data from these maps were used for elevation control, this scale was rejected. 1:100,000 topographic sheets were considered. Topographic maps at this scale exist for all of Wyoming, but this scale was rejected because critical sheets in Montana along the northern Park Boundary are not yet complete. The scale 1:125,000 was considered because of the availability of topographic maps of the Park, but again, no topographic maps at this scale exist outside of the Park. A base map at a scale of 1:500,000 was considered because the state geologic map is at this scale, but no topographic map is available at this scale, and the working group felt that the precision implied by this scale might be too generalized. For this reason, smaller scale maps were rejected. The 1:250,000 scale topographic map base was selected because of its availability, the precision the scale implies, and the manageability of the map for presentation at meetings and in regulation.

B. BOUNDARY TYPES

Several boundaries are shown on the Controlled Groundwater Area Map. The outer-most boundary is the line which separates those areas within the recommended Controlled Groundwater Area and those outside the Controlled Groundwater Area. The rest of the boundaries are nested within the Controlled Groundwater Area and separate different parts of the hydrothermal-flow system (recharge area (R-1 and R-2); discharge area (D-1 and D-2)) and different control objectives. This section describes the location of the areas and the basis upon which the boundaries were drawn.

1. Controlled Groundwater Area Boundary. The Controlled Groundwater Area Boundary for the hydrothermal-flow systems was drawn in working-group sessions with input from other professionals who were able to attend the session and from external technical reviewers who were available to read the document on short notice and wished to comment (see acknowledgements). The outermost boundary was delineated based on the distribution of the topographic divides, Madison Group

outcrop and potential subcrop, possible fracture systems, and their implications for recharge, transmission, and discharge in the hydrothermal-flow system. The entire Controlled Groundwater Area Boundary can be broken into four major component areas in Montana. The factors that controlled the boundary position are summarized moving clockwise along the Park Boundary from the southwest to northeast.

a. Area One. The first area extends from the Montana-Idaho border to the Hebgen Fault on the northern margin of Hebgen Lake. The outermost boundary for this area was drawn from the northwestern end of the Bald Peak Syncline where the Madison Group outcrops along the Montana border, along the Paleozoic/Precambrian Contact, across the Precambrian rocks to the edge of the alluvial fill material of the obsidian sand plain (Pierce, 1979) thought to contain discharging thermal water, and then north to the Hebgen Fault (see Controlled Groundwater Area Map).

This area is thought to encompass the hydrothermal-flow system for several reasons:

1. There is some warm-water discharge at the surface in the Hebgen Lake area (1:250,000 Ashton Quadrangle). Although these springs stopped flowing after the Hebgen Lake Earthquake, thermal discharge from the Park is possible in this area.

2. There is weak evidence of elevated temperature in a well at Bakers hole (16 degrees Celcius (C)) as well as in a flowing artesian well at the Povak Ranch (John Sonderegger and Wayne Hamilton, 1992, personal communication).

3. Hydrothermal outflow is also indicated by the chloride flux leaving this part of the Park (Fournier and others, 1976; Friedman and Norton, 1990).

4. The area contains the Bald Peak syncline which involves Madison-Group rocks, plunges toward the Park, and may recharge thermal systems in the Park (Witkind, 1972a). Hot springs to the south east on the Park Boundary occur on trend with the axis of the syncline and may be connected.

5. The area is in a region of tectonic extension (Sbar and others, 1972; Witkind, 1972a; Bailey, 1977; Qamar and Stickney, 1983).

6. The area is close to the caldera rim (Smith and Christiansen, 1980; Christiansen and Hutchinson, 1987; Taylor and others, 1989).

7. The area is active seismically (U.S. Geological Survey and others, 1964; Qamar and Stickney, 1983)

b. Area Two. The second area extends from the Hebgen Fault along the north edge of Hebgen Lake (see Controlled Groundwater Area Map). The boundary turns north roughly following the western edge of the Madison Group rocks in the Madison Range. This margin is the west limb of a south-east plunging synclinorium (Ross and others, 1955). Mississippian rocks are part of the structure and may potentially recharge the system. Some deep recharge in fractures may also occur in this area. Based on what appears to be a fault cutoff near Cameron, Montana (Tysdal and others, 1986) the boundary was carried across the synclinorium north of the Madison Group outcrops to the Gallatin River and down the Gallatin River to the point where the River crosses the Madison Group. This crossing point is a good boundary location since the Gallatin River would probably constitute a constant-head boundary if the River recharges the limestone in this area. The boundary then extends to the Gallatin River-Yellowstone River divide on an azimuth that connects this part of the boundary to the known southwestern extent of the Paradise Valley-Deep Creek fault system (Personius, 1982).

This second area is thought to encompass the hydrothermal-flow system for several reasons:

1. The area encompasses surface-water flow (recharge) to the Park based on topographic evidence and watershed analysis along the western boundary of the Park to the north of the Hebgen Fault.

2. The boundary encompasses potential recharge from Madison Aquifer down the plunge of a synclinorium. (The plunge of the synclinorium is uncertain, but is potentially toward the Park (Ross and others, 1955).)

3. Comparison of Madison Group outcrops with elevation data on the base map show Madison Group elevations of more than 10,000 feet. These elevations are consistent with heads at mapped thermal springs in the Park.

4. There are travertine-bearing thermal springs in the northwest part of the Park along the caldera rim (Terrace Springs) which conceivably could be related to Madison-Group recharge outside the Park.

5. The deuterium data suggest high-altitude recharge is possible from this region (Rye and Truesdell, 1992).

c. Area Three. A third area extends from the known end of the Deep Creek extensional-fault system to connect with the northern part of the Eagle Creek Watershed Divide (see Controlled Groundwater Area Map).

This third area is thought to encompass the hydrothermal-flow system for several reasons:

1. There is geochemical (chloride) and isotopic (helium) evidence that the geothermal system MAY be connected along fault systems extending out of the Park called by some the Reese Creek-Gardiner fault system at LaDuke Hotspring (Sorey, 1991).

2. The structures are connected to hydrothermal outflow in this area (Struhsacker, 1976; Sorey, 1991)

3. The deuterium data suggest recharge from this area is possible (Rye and Truesdell, 1992).

4. Sulfur isotope data suggest anhydrite sources likely associated with Madison Group (Sorey, 1991).

5. There is some magnetotelluric evidence of a heat source near Bunsen Peak (Sorey, 1991).

6. The area is near visible extensional-fault scarps on the eastern margin of the Paradise Valley extensional fault system (Qamar and Stickney, 1983; Personius, 1982).

b. Area Four. The boundary for the fourth area extends from the western Eagle Creek Drainage Divide along the drainage divide that sheds surface water into the Park. This divide extends to the Wyoming border and is the Park Boundary, where the Park Boundary is the divide near Cooke City, Montana ((see Controlled Groundwater Area Map).

This area is thought to encompass the hydrothermal-flow system because:

1. The isotopic evidence suggests recharge is possible here (Rye and Truesdell, 1992).

2. Watershed analysis of surface-water flow suggests groundwater recharge.

3. The area encompasses the Madison Group near Cooke City, Montana and rocks in the area are likely fractured (Pierce and others, 1973; Pierce, 1987).

2. Subareas within the Boundary. Inside the Controlled Groundwater Area Boundary are four subareas (two recharge and two discharge). There is a region of potential recharge to the hydrothermal system that is outside the topographic divides which control surface-water flow into the Park. These areas are recharged through the Madison Aquifer or deep fractures (R-1) and flow toward the heat source and then to the hydrothermal-discharge areas. There is a second area of recharge within the topographic drainage divides which shed shallow groundwater through alluvial

fill into the Park (R-2). No interaction is now known between the shallow alluvial (R-2) recharge and the hydrothermal-flow system, but deuterium data permit the possibility of high-elevation recharge to the hydrothermal system.

In general, all regions of probable hydrothermal discharge are collected together (D-1). Additional monitoring and control are desirable for discharging hydrothermal water directly adjacent to the Park (D-2) because of possible interactions between head decline outside the Park and heads in the hydrothermal system in the Park. The distance is difficult to establish without site-specific data. However, even low level use of hydrothermal water at Rotorua in New Zealand by domestic and hotel users was sufficient to impact thermal features nearby. The New Zealand government eventually cemented shut hydrothermal- production wells within 1 mile of Pohutu Geyser. Within months, the pressure levels recovered and the Pohutu geyser returned to normal behavior (Allis and Lumb, 1992). Although there are no geysers directly adjacent to Yellowstone National Park, this distance multiplied by a safety factor of two seems prudent for increased vigilance. While one might justify distances of up to 8 miles for a buffer strip based on impacts in other regions, such impact distances have historically been associated with large-scale withdrawals for power generation and can be addressed under D-1 controls. In some cases deep recharge occurs via the Madison Group or fractures which may exist below the shallow recharge areas or thermal discharge areas. In such areas two letter designations appear with the first the dominant and the second the secondary concern (eg. R-1 + D-1).

3. Boundary-Line Precision. Review of the criteria used to locate the Controlled Groundwater Area Boundary reveals that the precision of the line is low. While one might be tempted to draw a razor sharp line around the area (and indeed one could), the actual line should be viewed as a broad line best drawn with a wide pen. On the other hand, although the line is generalized, the position of the line was drawn to encompass certain hydrologic and geologic features and so should be viewed as carefully located given the data available.

IV. Baseline Data Collection and Monitoring

There are three tasks related to assessment of impact on the hydrothermal system in Yellowstone National Park. The first task is characterization of baseline conditions. The second task is establishment of long-term trends in water levels and chemistry outside of developed areas at selected sites, so that impacts from development can be placed in a regionally unimpacted framework. The third task is monitoring of specific groundwater development activities where such monitoring is warranted.

The groundwater characterization of groundwater from wells and springs has been broken into four categories, based upon the heat content of the water. The temperatures selected are based on White and Williams (1975). Normal temperatures are less than 59 degrees Fahrenheit (F; 15 degrees Celsius, C); thermally anomalous waters range from 59 to 90 degrees F (15 to 32 degrees C); warm waters range from 90 degrees F up to but not including boiling (the temperature of boiling will vary as a function of altitude, but is approximately 200 degrees F (93 degrees C) within the Park; and hot if the temperature exceeds 200 degrees F. Thermometry is discussed by Rybach and Muffler (1981). The intensity of baseline data collection and analysis should be tied to the temperature category and intensity of use (see tables which follow).

A. Baseline Data

Baseline data collection should consist of:

1. An inventory of springs and thermal features within the Park, within at least two miles of the boundary.

2. An inventory of wells, springs and thermal features outside the Park, but within the Controlled Groundwater Area, is desirable. All wells should be inventoried. As a minimum springs within two miles of the boundary should be inventoried.

3. Geophysical characterization (see implementation).

The importance of solid base-line data through time cannot be overemphasized. At Rotorua, researchers "....described many changes, not all of which are necessarily or obviously consistent with declining geothermal field. There is a background of both decline and recovery of individual features against which it is difficult to detect a consistent trend, and it is only through a broad-based approach, which looks at the field as a whole, that this has been possible" (Cody and Lumb, 1992, p. 218). Natural changes and variability can easily obscure changes due to human impacts. For example, monitoring-well levels at Rotorua in New Zealand were affected by natural changes, withdrawal changes, barometric changes, rainfall pattern changes, long-term rainfall changes, temperature changes, and boiling changes (Bradford, 1992, p. 234-5) The same can be expected for other parameters. If one is to know of impacts to the system, the natural temporal and spatial variability of the system must be recognized and accounted for in the inventory and baseline-data-collection programs. The National Park Service should increase its mandated inventory and monitoring of thermal features.

Because drilling is not considered a viable option within the Park, all sampling will have to be from natural discharge areas. The inventory of springs and thermal features within the Park should include water temperature, discharge rate, and chemistry.

The inventory of wells, springs and thermal features outside of the Park should include elevation of the well or spring (low-resolution global positioning is urged as a minimum since topographic-map-elevation data are inadequate for analytical purposes), depth to water or shut-in pressure for wells or flowing wells, temperature, specific conductance, discharge for springs and pumping rate for wells, and chloride content.

A representative sampling of existing wells requires both areal distribution and wells completed in different hydrogeologic units. For the purposes of this baseline, the two major units are bedrock and unconsolidated fill materials. In addition to standard requirements for well-drillers reports, permitting for new wells should require the driller or owner to provide well information including location to quarter-quarter-quarter-quarter section, ground elevation at the well, and temperature. Inspection of reports for compliance is recommended. For wells with temperatures greater than 59 degrees F, or discharges greater than two acre feet per year, or areas where cumulative effects are a concern, additional requirements may be imposed, such as measurement of specific conductance (SC), and chloride. Equipment for SC and chloride determination might be maintained for driller/owner use by the National Park Service at Mammoth and West Yellowstone. Measurement and reporting requirements are graduated based on temperature and metered water use. A useful reference on the chemistry of geothermal systems is Ellis and Mahon (1977).

If possible five randomly selected wells or springs in each of the subarea categories (R-1, R-2, D-1, D-2; 20 sites) should be sampled for "complete" chemistry, gas analyses, and isotopic analyses described in the table footnotes. The purpose is to supply background data as a reference against which later measurements from developed areas can be compared, analyzed and interpreted.

Geophysical baseline data should be collected within and along the borders of the Park to provide a reference data set. Within the Park, non-invasive geophysical techniques for gathering baseline data and for monitoring possible impacts are appropriate and potentially very useful. Monitoring of earthquakes within or near the Park provides useful data and should be continued, preferably with an enlarged network. For monitoring purposes, shallow, microearthquake activity should receive increased emphasis.

Another potentially useful data set would be provided by microgravity and precision elevation measurements. For purposes of monitoring any potential effects from development, any effects due to tectonic sources would have to be determined and subtracted (i.e., this is needed baseline data prior to any significant development). Other passive geophysical techniques, such as magnetotellurics and self potential surveys, that could be useful for monitoring the potential effects of geothermal development should be investigated. For any of the non-invasive geophysical techniques, participation at the federal level will be required because of equipment and cost constraints.

B. Long-Term Reference Data Collection.

A program is needed to collect reference data through time. Some wells and springs inside and outside the Park should be selected after the baseline characterization program is completed. The decision as to which wells and springs and what data is required should be left to the Technical Advisory Board since decisions should be based on the results of the characterization. Quarterly monitoring early in the program could be followed by annual monitoring later under the guidance of the Technical Advisory Board.

C. Monitoring

The following monitoring approach is recommended:

1. All wells must be metered, and provide annual reporting of appropriate items in the following tables:

Table 2. Reporting and monitoring requirements within R-1 R-2 and D-1 Subareas.

Temperature	Q< 2 acre-ft/year[1]	Q> 2 acre-ft/year
<59 degrees F	Q and T	Q, T, and WL[2]
60-89 degrees F	Q, WL, Chloride, SC and T	Q, WL, Chemistry[3], & T, for production well
90-200 degrees F	Q, T, Chemistry[4], 2 monitoring wells[7]	Q, T, Chemistry[6], Geophysical update[5], 4 monitoring wells[7]
>200 degrees F	Q, T, Chemistry[6], Geophysical update, 4 monitoring wells[7]	Additional regs besides those for < 2 acre-ft/year[7]

Table 3. Reporting and monitoring requirements for D2 Subareas.

Temperature	Q< 2 acre-ft/year[1]	Q> 2 acre-ft/year
<59 degrees F	Q, T, WL	Q, T, SC and WL[2]
60-89 degrees F	Q, WL, Chloride, SC and T	Q, WL, Chemistry[3], SC & T, for production and 2 monitoring wells[7]
90-200 degrees F	Q, T, Chemistry[4], Geophysical update[5], 2 monitoring wells[7]	Q, T, Chemistry[6], Geophysical update, 4 monitoring wells[7]
>200 degrees F	Q, T, Chemistry[6], Geophysical update, 4 monitoring wells[7]	Additional regs besides those for < 2 acre-ft/year[7]

[1] This category (use less than 2 acre-ft per year) requires that the well not exceed 6 inches in diameter, that the pump not exceed 2 horsepower, and that the well not exceed 300 feet in depth.

[2] Both static and pumping water levels required.

[3] Complete chemistry including all inorganic major, minor, and trace constituents normally analyzed by EPA certified laboratories. This analysis will help both with system analysis and assessment of potential health concerns associated with use of thermal water as a drinking-water supply. Values for pH, temperature, specific conductance, and alkalinity should be determined in the field.

[4] Chemistry to include additional components (gases or isotopes) at the discretion of the regulatory agency. Careful attention must be paid to correct sampling procedures for the gas analysis. Sampling procedures should be guided by the Technical Advisory Board.

[5] An annual microgravity and precision elevation survey may be required before production begins upon the recommendation of the Technical Advisory Board/Regulatory Agency when deemed appropriate.

[6] Chemistry should include all relevant isotopes and gases in addition to a complete inorganic analysis. Gas chemistry should include, but not be limited to, the following: N_2, NH_3, CO_2, CH_4, H_2, H_2S, and the noble gas series ^{3}He, ^{4}He, ^{3}6Ar, and ^{4}0Ar, in order to characterize the water(s) being produced for comparison with Park waters (Sorey, 1991). Sampling procedures should be guided by the Technical Advisory Board.

[7] Data to be reviewed/analyzed by the Technical Advisory Board and/or regulatory agency identified in Section V.

Outside of the Park but within the Controlled Groundwater Area, the Regulatory Agency will periodically analyze hydraulic head data and assess cumulative impacts. In areas of recharge transmission to the hydrothermal system, the depth and geologic location from which a well draws water largely determines its threat to the hydrothermal-flow system in the Park. Deep wells, that are cased to exclude water from alluvium and near-surface bedrock, may draw from rocks or zones that are largely isolated from the extensive shallow recharge system but directly connect recharge to the hydrothermal-flow system. Wells cased to specifically withdraw water from the Madison group rocks or a highly transmissive fracture system requires individualized attention to data obtained by post-drilling tests to insure recharge to the hydrothermal system is protected.

Any wells that produce waters that qualify as warm or hot will need more intensive monitoring and/or analysis to assure that they will not impact the Park's hydrothermal system. Geophysical baseline information would be required when warm or hot waters are encountered within the Controlled Groundwater Area, and large-scale withdrawals are contemplated. Data collection should consist of characterization adequate to indicate the depth and lateral extent of the reservoir zone. Microgravity and precision elevation surveys should be implemented prior to production and be followed by microgravity and precision elevation surveys through time as deemed necessary by the Technical Advisory Board. Additional geophysical information may be required by the Technical Advisory Board.

Thermal water development within this zone will require intensive monitoring of both pressures or water levels and water chemistry (liquid and contained gases). Initial characterization of water levels or pressures and of the thermal-water chemistry at the production site(s) and the monitoring network must be very complete. These data will become the baseline used to indicate whether a change in the water chemistry or hydraulic gradient is occurring. Any significant change such as a 50 percent increase in chloride levels that suggests that thermal water from the Park is becoming a larger component fraction in the production water will be considered grounds for presuming that the Park is at risk. Significant reduction or cessation of water production is required. The regulatory agency with the advice of the Technical Advisory Board is responsible for determination of which alternative is required. Other tests of significant change may be implemented by the Regulatory Agency in consultation with the Technical Advisory Board.

When monitoring wells at a site are required, the monitoring network must consist of two to four wells in addition to the development well. The monitoring wells will normally trend toward the Park, or be keyed toward the source zone as indicated by the geophysical study. These wells must be completed in the production horizon and be shown to respond to the production-well pumpage or production. When four wells are required, the outer well may not be able to show response to the development production initially, it must be completed so that the water chemistry strongly indicates that these wells are part of the same flow system. When monitoring wells are required, the regulatory agency should review and approve the locations of monitoring wells prior to installation, and should review the adequacy of the performance after installation.

Extreme care should be used in any baseline or monitoring program where wells are used. Proper design of the wells is imperative. Indeed one could argue that installation of even a monitoring well directly adjacent to the Park could constitute a threat to the hydrothermal system since wells can decrepitate or can be designed incorrectly. If pressures are high, leakage or new flow at the surface can have the same effect as development even if development does not occur.

2. Buffer Zone (D-2). The recommendations above would not preclude an appropriator from drilling a well directly adjacent to the Park to extract thermal water. Clearly, a withdrawal at the Park Boundary would very likely (though not certainly) impact the hydrothermal-flow system in the Park. This leaves the question, how far from the Park Boundary should every well which withdraws water warmer than 15 degrees C be scrutinized individually for impact on the Park. This distance is of course difficult to estimate without site-specific data. However, even low level use of hydrothermal water at Rotorua in New Zealand by domestic and hotel users was sufficient to impact thermal features near by. The New Zealand government eventually concreted in wells using thermal water within 1 mile of Pohutu Geyser (Cody and Lumb, 1992). Within months, the pressure levels recovered and the Pohutu geyser returned to normal behavior (Bradford, 1992). Although there are no geysers directly adjacent to the Yellowstone National Park, this distance times a factor of safety of two seems prudent for well-by-well analysis of well effect and cumulative effects regardless of pumping rate. This buffer zone at 2 miles is recommended as a minimum.

V. Implementation

A Technical Advisory Board, with members familiar with Montana's geothermal resources and/or geothermal exploitation, should be instituted to meet as needed to assist the Department of Natural Resources and Conservation in administering this Controlled Groundwater Area. One function of the Board should be technical assistance in the updating or modification of the criteria and/or boundary of the Controlled Groundwater Area. A second function of the Board would be to provide technical assistance on the assessment of cumulative effects of development within the Controlled Groundwater Area. A third function is to periodically review hydrologic data relevant to protection of the Park to determine whether the system may be impacted. A fourth function is recommendations regarding a long-term reference data collection. A fifth function is review of monitoring plans where required.

The use of a Technical Advisory Board follows the model established for the Long Valley, California, KGRA, (Farrar and Lyster, 1990; Lyster, 1991) and should utilize representatives from the geothermal industry, state agencies (DNRC, RWRCC, DHES, EQC, MBMG), federal agencies (USGS, NPS, USFS, SCS, EPA), the consulting profession, and possibly the university community. The key is to have representatives that understand geothermal systems and the application of geophysical and geochemical data in understanding flow systems. In order to safely permit development of thermal waters while still protecting the Park, an understanding of the controls on the system being developed is mandatory. The function of this committee should be solely technical. Technical review would occur annually, or when the DNRC Water Rights Bureau was concerned about a particular well or application and determined that more detailed review appropriate. Political review of projects and impacts would fall to a political group (RWRCC or the like).

Water-related data collection, storage, and dissemination be assigned with funding to the Groundwater Information Center in the Montana Bureau of Mines and Geology.

If no funds are allocated for characterization, baseline, or long-term reference data collection, one would have to question the commitment to protect the hydrothermal system in the Park.

VI. Additional comprehensive data collection needs.

Several additional data collection efforts are strongly recommended to assist with interpretation of inventory, baseline and monitoring data.

1. Complete a map of surface geothermal features in Yellowstone National Park.

2. Review of the geologic mapping adjacent to the Park indicates that significant work remains to be done to understand the structural and stratigraphic architecture of the system. As a minimum, well constrained compilations of geology on the Bozeman, Billings, Cody, and Ashton 1 x 2 degree AMS quadrangles is needed. In addition, much field work on the geology remains to be done both on the surface and in the subsurface (geophysically) below the Gallatin Volcanic Field. Once compilation is complete, detailed mapping in problem areas at 1:100,000 or even 1:24,000 may be necessary in some areas.

3. Experiences elsewhere suggest that changes due to development can be detected, but only if data before development are known. In the case of subsidence, a very sound network of precision elevation data is needed. Such a network might be

established in conjunction with a well-head elevation measurement program for efficiency, but reoccupation of older topographic survey points should not be ignored. Analysis must recognize the potential for a tectonic component in the elevation-change data as well as the possibility of human-induced components. Monitoring of microearthquakes should also be encouraged. Exploration of thermal infrared, microgravity, magnetotelluric surveys is recommended. None of these data should be considered a substitute for a sound long-term reference data collection.

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CONTROLLED GROUNDWATER AREA BOUNDARY
IN MONTANA FOR
YELLOWSTONE NATIONAL PARK

ADDENDUM 1:

PROTECTING DEEP RECHARGE TO HYDROTHERMAL SYSTEMS

Around the world, many kinds of hydrothermal systems occur, but they all have two features in common, a source of heat in rocks, at depths of thousands to tens of thousands of feet, and a supply of water to be heated at those depths. In many places, Yellowstone Park contains several, the heated water is able to rise to shallow places where it mixes with ordinary groundwater or even spills out as boiling springs or geysers, more or less mixed with cooler waters. Surface hydrothermal expressions are of many types, depending on how boiling and mixing relationships occur within the ground and their relationship to local elevation of the cool water table. These features include springs, from warm to hot to boiling, geysers (a special kind of boiling spring), mud pots, steaming ground, and fumaroles (which emit a variety of gases, including water vapor, and may have temperatures from cool to hundreds of degrees F). Also, solid deposits of sinter (mainly silica) and travertine (mainly calcium carbonate) can form, which depend on the water's chemical history regarding water-rock reactions and temperature.

The Hydrothermal System

The surface hydrothermal features are only one item of a system which includes the deeper hot water rising from the hot rock, the hot rock itself, and the cool water supply which becomes heated. Water circulation through the system is driven by the heat source which provides buoyancy to the hot water, relative to surrounding cool groundwater, so that it may rise to the elevation of the local water table. The system "circulates" when the hot water continuously flows up and out (discharging) to be regenerated by the supply of deep cool water which becomes heated upon moving through the heat-source rock. Obviously, the system diminishes as the original heat of the rock becomes depleted. Most hydrothermal surface features, but not all, are related to volcanic intrusive rocks that heat local country rock (at depth) which are involved, in a secondary way, with heating the water of the hydrothermal system. New intrusive activity in an area can re-stimulate hydrothermal systems that may have become thermally depleted.

The deep, cool water that enters the heating component of the hydrothermal system is an ordinary part of the normal groundwater system that has shallow and deep connections ultimately supplied by meteoric water. The proof that hot springs waters were mainly of meteoric origin, not mainly water contained in the igneous rocks, was an early triumph of studies about stable isotopes, which resolved questions about the volumes of waters involved. For example, the annual volume of hot water discharged through the Yellowstone systems northeast of the continental divide (includes about 95% of the Park's hydrothermal activity) is about 80,000 acre-feet per year of primary thermal water that, at depth, before boiling and mixing, is hotter than 600°F. That volume is equivalent to less than one-half inch of water per year over the same area, compared to meteoric precipitation that ranges from 24 to 60 inches per year, depending on elevation. Apparently, infiltration of less than two percent of meteoric water available in the Park could support the hydrothermal system.

A Basis for Recommendations

Studies of the surface discharges of springs and geysers at Yellowstone and of waters from shallow test wells drilled nearby tell something about the pathways taken by the hydrothermal water parcels before they reached the near-surface environment of springs and geysers. Although the available data do not show all the specific things we would like to know, they do provide some solid limits to speculation about the origin of the waters. For example, there is no reason to doubt that much of the area within the Park boundary provides input to the deep hydraulic systems which support the hydrothermal recharge. However, there is a possibility that resupply to the deep systems may be contributed from outside the present Park boundaries, but it cannot be proved one way or the other. Even if it were proved that recharge does come from within and without the Park boundary, we might still be unable to designate the relative proportion of the out-of-Park contribution, nor decide whether it was crucial to the continued function of in-Park hydrothermal systems.

This kind of suggestive, but inconclusive data is the stuff that the Working Group has considered. Because the out-of-Park contribution to the deep recharge cannot be proved either unimportant or absent, the Working Group recommends to play safe by setting the boundary to a groundwater control area as if the out-of-Park contribution to deep recharge were important to one or more hydrothermal systems within the park.

Some Relevant Data

Two kinds of chemical data combined with observations from geologic maps are the main objective information for the conclusions above.

The proportions of deuterium (heavy hydrogen) in thermal waters of the Park tell something about the elevation of possible places where meteoric recharge waters fall. Specifically, deuterium concentrations in thermal waters of the geyser areas and the Mammoth Springs area are much lower than the average deuterium concentrations for meteoric water that falls near the geysers and springs, and lower than the average for the park. However, these low concentrations are consistent with meteoric precipitation that occurs on the higher elevation places, exceeding 9,000 feet elevation. These elevations occur on mountain ranges inside the Park and on nearby parts of the Gallatin and Absaroka ranges outside the Park. Although recharge to the deep part of the hydrothermal system appears to depend on high elevation places, not from the total area of the Park, we cannot conclude which high elevation place are involved and which are not involved. Accordingly, the fraction of meteoric precipitation that enters the deep system from high elevation recharge areas only must be locally greater than the nominal two percent value, calculated above, which was based on areas at all elevations.

Hydrothermal waters dissolve some of the rock components along their pathways. Thus, analysis can suggest what those rocks were. In the case of Mammoth Springs area, the strontium isotope proportions in the travertine are similar to what would be derived from the Madison group rocks. These rocks are believed to underlie most of the non-caldera part of the Park, and are important aquifers where they exist at depth in many other parts of Montana, the Dakotas, and elsewhere. They are known as outcrops in several places outside the Park, some at high elevations in the Gallatin Range. Furthermore, geologic structures related to the Gallatin Range strongly suggest that the Madison group outcrops outside the Park are continuous with the deep rock assemblage in the Park, plunging there from the northwest. This could provide a hydraulic pathway for the low-deuterium recharge waters.

Lastly, a large, steeply dipping fault zone, with vertical displacement between the sides of about one mile, trends north-south through the western part of the Park and into the Yellowstone Valley north of the Park. This structure provides an alternative hydraulic pathway and would cut the deep Madison group rocks inside the Park.

Strategies for Protecting Deep Recharge

Two strategies for protecting deep recharge emerge from the description above. First, protect high elevation areas from local consumptive use of surface water and shallow ground water where the Madison group aquifers receives such waters and are plausibly connected, in a hydraulic way, to deep rocks inside the Park. Second, protect the Madison group aquifer from large withdrawals by deep wells where the area of withdrawal might plausibly be related to pressure support of the deep, in-Park hydraulic system.

Whether a specific out-of-Park well is benign to in-Park hydrothermal systems may be resolvable based on the description above. Specifically, if the subject well yields water with a significantly different deuterium content that the in-Park hydrothermal features, it may be judged "not on the flow path of recharge water", hence probably benign. Depending on facts about the well which relate to elevations of aquifers tapped by the well, their association with the Madison group, planned rates of water withdrawal, and measured hydraulic properties of the tapped aquifers, a final judgement of "benign" could be appropriate.

ADDENDUM 2:

PROTECTING SURFACE HYDROTHERMAL FEATURES FROM LOCAL, SHALLOW DEVELOPMENT

Because the lands involving surface hydrothermal features inside the Park are not subject to policy options of the surrounding States, there are no appropriate restrictions that might be imposed by a state. However, in the public's eye, the alteration of those surface features seems like the main risk associated with geothermal development. This addendum addresses two aspects and concludes there is no large problem here.

Firstly, the means to artificially manipulate the surface hydrothermal features of the park or to operate wells drilled in the near vicinity of the features is wholly within the purview of the Park Service in regard to scientific study, safety, or other objective purpose. No further comment will be offered on this point.

Secondly, Rotorua, New Zealand provides a significant experience with surface developments in an area of geyser activity. There, several geysers ceased their activity when nearby drilled wells became so abundant and so used that the local water table was drawn down by several feet. The earliest wells were drilled in the 1920's and by 1985 about 500 wells were in use. The total withdrawal of hot water through the wells was estimated at 25,000 tons per day in summer and 31,000 tons per day in winter. The wells served 1840 users, 1500 of which were residential.

Geyser activity was restored at Rotorua when wells within 1.5 kilometers (0.93 miles) of them were closed. Closure applied to only one-third of the active thermal wells in the area. In physical terms, that reversibility of geyser action was possible because the heat source and recharge portions of the system were not impacted by the shallow surface developments. Also, the natural flow through the system is strong, clearly exceeding what was required to supply the remaining, unclosed wells. By comparison, the natural discharge at Mammoth Springs in Yellowstone is about 50,000 tons per day.

Thus, concern about local, shallow impacts to the hydrothermal features inside the Park can be addressed easily and simply. The impact of artificial stimulation or operation of shallow wells in the near vicinity of the surface hydrothermal features can be more or less predicted before such operations are begun. If an actual effect is substantially greater than what was predicted, then simply ceasing the operation can be expected to restore the natural condition of things.

Of course, some hypothetical geologic conditions can always be proposed to contradict any basis for predicting effects. Whether such proposals are reasonable, improbable, or bizarre can be decided as part of a review process that would occur prior to any drilling or other significant activity inside the Park. In short, impacts due to shallow developments near hydrothermal features inside the Park can be readily controlled on a site-by-site basis in real time. The possibility of permanent, non-natural impact does not deserve to be treated as a general, or locally serious problem. Unanticipated impacts can be expected to be reversible, so long as the heat source and hydraulic structure of the circulation system remain intact.

ADDENDUM 3:

COMMENTS ON STRATEGIES FOR MONITORING WELL ACTIVITY OUTSIDE THE PARK

1. Futility of monitoring for impact inside the Park

Three lines of reasoning apply to this conclusion. Firstly, *the objective of using a controlled groundwater zone aims at having no impact in the Park that could be measured.* This implies that monitoring results would indicate natural variations of background, not effects from out-of-Park activity. Knowledge of such background levels, and variations thereof, would be helpful to issues of impact and alleged impact. But, they should not be confused with impacts from out-of-Park well usages that could be (should be) monitored and controlled through, out-of-Park measurements.

Secondly, *if monitoring means were set up in the Park to wait for impact to occur, the indication would be too late* -- impact "has already" occurred.

Thirdly, *there would be ambiguities in assigning an observed effect to remote, out-of-Park well in the face of plausible effects of nearby natural variations, without confirming data, ostensibly from out-of-Park sources.* Unambiguous assignment of effects from out-of-Park well use requires that the measured magnitudes are clearly above background variations and the observation point is clearly associated with the field of effect of the observed well. These requirements correspond with the subject well and the monitoring means being outside the Park.

Thus, monitoring in-Park features should only be construed as observing the natural order of things, including natural variation.

2. A tactic for out-of-Park monitoring and control

In practice, clear, measurable effects due to operating a subject well, or group of subject wells, can be extrapolated toward the Park by appropriate hydrological models. The models would yield predictions about both an intensity of effect and a relevant interval of time. This leads to at least two options. If the predicted effect forecasts impact at the Park boundary, then well operations could be modified in time to avoid such impact. Meanwhile, continued monitoring would show the effect of modified operations, all outside the Park, and whether the model correctly predicted the effect of changed operations. Also, or alternatively, an additional monitoring point could be set up between an active monitoring station and the Park, aiming to verify, or make more precise, model predictions based on data from another monitoring site.

3. Most wells that could be drilled require little monitoring

The main objective of protecting deep recharge is focussed at high elevation areas, as indicated by the relatively low deuterium concentrations in thermal waters of the Park. Wells at lower elevations, that tapped high-deuterium waters, would be judged as "not on the recharge pathway". Thus, monitoring such wells only makes sense when they are close enough to the Park boundary to be involved with the other basis for the controlled groundwater boundary, namely that of protecting hydraulic gradients in the shallow groundwater system at the Park boundary.

Hydrologic principles permit a claim that high-deuterium wells at low elevations could be involved with the pressure support of the deep system, even though they were not on the recharge pathway. However, such claims are speculative and impractical to confirm with data. Allegation of impact is theoretical only, without reasonable guidance for direction to a monitoring location nor for the depth at which monitoring should focus. No monitoring should be attempted without reasonable assurance that the monitoring site is capable of being affected by an alleged, or potential impact.

4. Size of wells and their reasonable effects

Domestic wells for single family residences commonly withdraw only one or two acre-feet per year of cold, not thermal, water. In the Rotorua example (Addendum 2) the thermal water withdrawals for domestic use amounted to only about 15 acre-feet per year per well, although their collective effect was significant. More intense withdrawals can be achieved by deep wells of large bore. For example, pumping rates of 2000 gallons per minute (3100 acre-feet per year) of superheated water (>300°F) are common industrial practice in some geothermal energy developments and multiple wells are generally involved.

Clearly, monitoring efforts must be designed commensurate with the subject of monitoring. Whatever the objectives of monitoring out-of-Park wells, one should keep perspective that the in-Park natural discharges total about 80,000 acre-feet per year of water initially over 600°F. Cooler temperatures correspond with dilution by local, shallow water so the mixtures we see in surface features and draining into Park rivers are proportionally larger than 80,000 acre-feet per year.

TAKE PRIDE IN AMERICA

United States Department of the Interior

GEOLOGICAL SURVEY
345 Middlefield Road
Menlo Park, California 94025

January 5, 1993

Steve Custer
Montana State University
Bozeman, Montana 59717-0348

Dear Steve:

I have received the two drafts of the report on controlled groundwater areas in Montana adjacent to Yellowstone National Park. I have only had a few hours today to review these reports, and am unsure of the deadline for getting some comments to you on this material (I thought your phone messages referred to a late January time frame, but your accompanying memos suggest early January). In any event, I won't have any more time to spend on it until February so I thought I would send along a few preliminary comments at this time.

First of all, I would concur in general with the designated boundaries of the control zones, assuming that what is desired are zones that include all flow regimes that could conceivably be in hydrologic connection with the Park's geothermal systems. For this purpose, surface drainage areas, faults, and Madison rock extents are the most defensible. I don't think the stable isotope data are very definitive for this purpose, however. In this regard, is it possible that Madison rocks underly more of the region outside the northeast corner of the Park?

In regard to the designation of the third and fourth areas, I don't understand or agree with inclusion of a large region of R1-type recharge to the north of the discharge subarea along the Yellowstone River, and note that the fourth area includes the Bear Creek Springs, which could contain a component of thermal water derived from the Park's geothermal systems. So the region around Bear Creek in area four would seem to qualify more as a discharge subarea.

It is unclear to me how the three tasks that are required to assess the impacts of ground water development outside the Park on the Park's geothermal resources are to be carried out. Do you envision the developer/well owner providing only driller's report- type data on each well and the Advisory Board then instigating and carrying out the baseline data collection and monitoring? I'm very skeptical that the type of data and analyses being called for will provide answers to the impact question, with the possible exception of the program suggested for wells that produce warm or hot water. How would you ever be able to tell if wells located in areas of potential recharge to the Park's geothermal systems would have or are having an effect on those systems? Would you monitor Old Faithful? Seriously, the only way to tell would be to monitor pressures in wells completed in interconnected parts of the flow system inside the Park, something which will never be done. Some of the monitoring requirements suggested in Table 1 (water and gas chemistry, geophysics) would seem to be of no use whatsover for wells completed in recharge areas.

For wells tapping warm or hot water, the report notes on p. 3 (shortened draft) that development of such wells should not reduce heads in the hydrothermal flow system within the Park. This, of course, was one of the subjects of the USGS report on the Corwin Springs KGRA. Your approach seems to be to call for extensive monitoring of fluid pressures and water chemistry in both the developed well(s) and associated monitor wells drilled and paid for by someone (the developer?, the Advisory Board?). The usefulness of water chemistry in this regard is questionable. For one thing, by the time large changes in chloride concentration occurred in developed wells it is likely that there would already be significant head declines inside the Park. For another, if you require chemical evidence that monitor wells are completed in the same flow system as the well to be developed, why not also use chemical evidence to decide a-priori if the developed well is connected to the Park's geothermal system(s). The bottom line is still preventing or minimizing head changes within the Park's geothermal systems and the only ways to do this are to monitor such head changes or only permit wells that capture natural spring discharge outside the Park. Congress and the National Park Service seem to feel that even these approaches are too risky in the Corwin Springs KGRA, and I would add that if one follows such a conservative approach, even wells that tap cold groundwater should be disallowed because of the potential for affecting heads in ground water aquifers and adjacent thermal reservoirs inside the Park. Obviously, my frustration over the issue of adequate protection of the Park's thermal resources is showing, but I can't tell from reading your report what would happen, for instance, with the existing CUT geothermal well or other wells in the KGRA. Would extensive monitoring be required or could the Advisory Board determine that the "manner of capture is not projected" to impact the Park.

I do prefer the idea of an advisory board deciding on scientific grounds whether certain wells pose threats to the Park's thermal resources over an outright ban within a fifteen mile buffer zone. Even with additional data from the types of programs called for in your report, it will be difficult to assess the level of risk involved. An advisory board, however, would provide a forum for discussion and scientific consensus that has been missing thus far. Please keep me informed as things progress on this issue.

Sincerely,

Mike Sorey

Mike Sorey

Custer.Let

4 January 1993

Comments by Irving Friedman on draft (30 December 1992) of report "Yellowstone National Park Controlled Groundwater Area Boundary for Montana" by Custer et al.

I have several general comments and will state these first before addressing specific issues.

Although I note that your suggested Advisory Board includes a representative from the National Park Service, I strongly recommend representation from Yellowstone National Park. This is based on the fact that the YNP administration is the group with the primary (and only) responsibility to protect Yellowstone, and in addition, is in the best position to be aware of events in the vicinity of the park. Having a representative from the regional or Washington headquarters may satisfy the legal requirements, but may not be in the best interests of Yellowstone. 2

You also suggest that the Advisory Board utilize representatives from the geothermal industry and other groups that understand geothermal systems. I wish to point out that the knowledge of such systems is still fragmentary, and that even the "experts" have been surprised by the significant drop in reservoir pressure at the worlds largest geothermal development at The Geysers in California. I believe that the Board should have representation from the environmental community so that you do not have the Fox-Guarding-the-Henhouse problem.

The document addresses withdrawal from a single well and seemingly ignores the cumulative effects of withdrawal from many closely spaced wells, an event that is likely to occur at any time, given the history of development adjacent to the park.

The 2 mile exclusion zone is far too small, and is based on your consideration of the incident at Rotorua, where the aquifer is a uniform tuff, This cannot be used to model possible effects of development at Yellowstone, where the aquifers are far more complex. The exclusion zone should be much larger.

p. 2, 5 lines from bottom. Recharge may occur over a large area as stated, or it can be controlled by structure so that recharge is confined to a small area or zone.

YELL 056b (10-92)

NATIONAL PARK SERVICE YELLOWSTONE FACSIMILE FORM

DATE: 5 Jan 1993 Fax #: 406-994-6923

TO: Steve Custer

FROM: Wayne Hamilton

SUBJECT: Comments on 4 Jan Draft. He means 30 Dec Dra

TOTAL # OF PAGES (INCLUDING THE COVER SHEET): 6

TRANSMITTED BY: Judy

SPECIAL INSTRUCTIONS:

IF THERE IS A PROBLEM, PLEASE CALL THE FAX OPERATOR AT (307) 344-2031, or FTS 307-344-2031.

Facsimile Machine No.: (307) 344-2323.

I. INTRODUCTION

The geothermal resources of Yellowstone National Park are an important national treasure which should be protected. Such protection was one of the reasons for establishment of the Park and continues to be important. Substantial evidence exists that development of geothermal resources near similar features in other regions of the world have impacted those resources. These impact have occurred in response to development for domestic and hotel use as well as at power generation facilities. In view of such impacts, the Montana Reserved Water Right Compact Commission and the Water Resource Division of the National Park System are discussing the implementation of a controlled groundwater area to protect this important resource from impact by groundwater development outside the Park. The controlled groundwater area would be promulgated under Montana water law, and would apply only to those areas adjacent to Yellowstone National Park in Montana.

A technical working group was organized to examine the question of how a controlled groundwater area could be defined. The working group was constrained to literature-based analysis because of the short time-frame (3 months) between task identification and the deadline for the recommendation. The short time frame was necessary to provide input to the 1993 Montana Legislature for consideration.

Review of the literature demonstrates that there are little hard physical data with which to constrain models of the geothermal flow system in the Park. Data which would be required include water temperature, total head at both shallow and deep levels in both the recharge and discharge areas, measured transmissivity and storativity, as well as geologic data on subsurface stratigraphy, structure, fracture location, fracture width, anisotropy and heterogeneity. Although some data exist~~s~~, much of the critical data do~~es~~ not exist and cannot be reasonably expected in the near future. For this reason, numerical models were rejected as an approach because of the lack of data required to effectively calibrate and validate the models.

A literature review was conducted for developed geothermal fields in the world where both an impact and a distance from the field was reported. The data were constrained to development in hydrothermal systems similar to that in Yellowstone Park. Impacts from geothermal development, such as land subsidence, have been reported over distances ranging from 1 to 7 miles; pressure drops over distances from 0.5 to 5 miles; and changes in heat flow and geyser activity over a distance of about one mile. Because ~~Since~~ subsidence results from aquifer pressure decline, subsidence is a good first estimate for impact. One must remember however that the pressure effects from development likely extend farther from the development center than the measured subsidence distance. To conclude that any development no matter how small would produce effects at the largest distance would be incorrect. These effects resulted from high rates of water removal (5000 to more than 70,000 gpm) continuously over several years with little reinjection. However, these data do provide perspective regarding the

[3] Complete chemistry including all inorganic major, minor, and trace constituents normally analyzed by EPA certified laboratories. This analysis will help both with system analysis and assessment of potential health concerns associated with use of thermal water as a drinking-water supply.

[4] Chemistry to include additional components (gases or isotopes) at the discretion of the regulatory agency.

[5] An annual microgravity and precision elevation survey may be required before production begins upon the recommendation of the Advisory Board/Regulatory Agency when deemed appropriate.

where atmospheric contam. can be excluded,

[6] Chemistry should include all relevant isotopes and gases in addition to a complete inorganic analysis. Gas chemistry should include, but not be limited to, the following: N_2, NH_3, CO_2, CH_4, H_2, H_2S, and the noble gas series ^{3}He, ^{4}He, ^{36}Ar, and ^{40}Ar, in order to characterize the water(s) being produced for comparison with Park waters.

[7] Data to be reviewed/analyzed by the technical advisory board and/or regulatory agency identified in Section V.

→ 2. Sampling must be conducted to meet standards (Montana?) needed for assured quality,
→ 3. Laboratory analysis must be done by a laboratory approved by (Tech. Committee?).

Outside of the Park but within the Controlled Groundwater Area, the Regulatory Agency will periodically analyze hydraulic head data and assess cumulative impacts. In areas of recharge transmission to the hydrothermal system, the depth and geologic location from which a well draws water largely determines its threat to the hydrothermal flow system in the Park. Deep wells, that are cased to exclude water from alluvium and near-surface bedrock, may draw from rocks or zones that are largely isolated from the extensive shallow recharge system but directly connect recharge to the hydrothermal flow system. Wells cased to specifically withdraw water from the Madison group rocks or a highly transmissive fracture system requires individualized attention to data obtained by post-drilling tests to insure recharge to the hydrothermal system is protected.

Any wells that produce waters that qualify as warm or hot will need more intensive monitoring and/or analysis to assure that they will not impact the Park's hydrothermal system. Geophysical baseline information would be required when warm or hot waters are encountered within the Controlled Groundwater Area, (or proximate) and large-scale withdrawals are contemplated. Data collection should consist of characterization adequate to indicate the depth and lateral extent of the reservoir zone. Microgravity and precision elevation surveys should be implemented prior to production and be followed by microgravity and precision elevation surveys through time as deemed necessary by the Advisory Board. Additional geophysical information may be required by the Advisory Board.

A high production rate far away ≅ a low production rate close to boundary? w/resp. to impact.

C. Monitoring

is there a 2., 3. ?

The following monitoring approach is recommended:

1. All wells must be metered, and provide annual reporting of appropriate items in the following tables:

Table 1. Reporting and monitoring requirements within R-1 R-2 and D-1 Subareas.

Temperature	Q< 2 acre-ft/year[1]	Q> 2 acre-ft/year
<59 degrees F	Q and T	Q, T, and WL[2]
60-89 degrees F	Q, WL, Chloride, SC and T	Q, WL, Chemistry[3], & T, for production well
90-200 degrees F	Q, T, Chemistry[4], 2 monitoring wells[7]	Q, T, Chemistry[6], Geophysical update[5], 4 monitoring wells[7]
>200 degrees F	Q, T, Chemistry[6], Geophysical update, 4 monitoring wells[7]	Additional regs besides those for < 2 acre-ft/year[7]

Table 2. Reporting and monitoring requirements for D2 Subareas.

Temperature	Q< 2 acre-ft/year[1]	Q> 2 acre-ft/year
<59 degrees F	Q, T, WL	Q, T, SC and WL[2]
60-89 degrees F	Q, WL, Chloride, SC and T	Q, WL, Chemistry[3], SC & T, for production and 2 monitoring wells[7]
90-200 degrees F	Q, T, Chemistry[4], Geophysical update[5], 2 monitoring wells[7]	Q, T, Chemistry[6], Geophysical update, 4 monitoring wells[7]
>200 degrees F	Q, T, Chemistry[6], Geophysical update, 4 monitoring wells[7]	Additional regs besides those for < 2 acre-ft/year[7]

[1] This category (use less than 2 acre-ft per year) requires that the well not exceed 6 inches in diameter, that the pump not exceed 2 horsepower, and that the well not exceed 300 feet in depth.

[2] Both static and pumping water levels required.

The boundary for the fourth area extends from the western Eagle Creek drainage divide along the drainage divide that sheds surface water into the park. This divide extends to the Wyoming border and is the Park Boundary, where the Park Boundary is the divide near Cooke City.

USGS, 1972, Geol. Map of YNP shows base of Mm dipping towards interior of park. Descends 500' down Pebble Creek. Travertine at Soda Butte warm spring is probably from Mm ∴ Control zone boundary should extend beyond boundary one drainage to include shallow block that may contain Mm.

This area is thought to encompass the hydrothermal flow system because:

1. The isotopic evidence suggests recharge is possible here.

2. Surface-water flow suggests groundwater recharge.

3. The area encompasses the Madison Group near Cooke City.

Subareas within the Boundary. Inside the controlled groundwater-area boundary are four subareas (two recharge and two discharge). There is a region of potential recharge to the hydrothermal system that is outside the topographic divides which control surface-water flow into the Park. These areas are recharged through the Madison Aquifer or deep fractures (R-1) and flow toward the heat source and then to the hydrothermal discharge areas. There is a second area of recharge within the topographic drainage divides which shed shallow groundwater through alluvial fill into the Park (R-2). No interaction is now known between the shallow alluvial (R-2) recharge and the hydrothermal flow system, but deuterium data permit the possibility of high-elevation recharge to the hydrothermal system.

In general, all regions of probable hydrothermal discharge are collected together (D1). Additional monitoring and control are desirable for discharging hydrothermal water directly adjacent to the park (D-2) because of possible interactions between head decline outside the Park and heads in the hydrothermal system in the Park. The distance is difficult to establish without site-specific data. However, even low level use of hydrothermal water at Rotorua in New Zealand by domestic and hotel users was sufficient to impact thermal features nearby. The New Zealand government eventually cemented-in hydrothermal- production wells within 1 mile of Pohutu Geyser. Within months, the pressure levels recovered and the Pohutu geyser returned to normal behavior. Although there are no geysers directly adjacent to Yellowstone National Park, this distance multiplied by a safety factor of two seems prudent for increased vigilance. While one might justify distances of up to 8 miles for a buffer strip based on impacts in other regions, such impact distances have historically been associated with large-scale withdrawals for power generation and can be addressed under D-1 controls. In some cases deep recharge occurs via the Madison Group or fractures which may exist below the shallow recharge areas or thermal discharge areas. In such areas two letter designations appear with the first the dominant and the second the secondary concern (eg. R1 + D1).

?

Controlled Groundwater Area Boundary. The outermost boundary was delineated based on the distribution of the topographic divides, Madison Group outcrop and potential subcrop, possible fracture systems, and their implications for recharge, transmission, and discharge in the hydrothermal flow system. The entire controlled groundwater area boundary can be broken into four major areas in Montana. The factors that controlled the boundary position are summarized moving clockwise along the Park Boundary from the southwest to northeast.

The first area extends from the Montana-Idaho border to the Hebgen Fault on the northern margin of Hebgen Lake. The outermost boundary for this area was drawn from the northwestern end of the Bald Peak Syncline where the Madison Group outcrops along the Montana border, along the Paleozoic/Precambrian Contact, across the Precambrian rocks to the edge of the alluvial material of the obsidian sand plain thought to contain discharging thermal water, north to the Hebgen Fault.

This area is thought to encompass the hydrothermal flow system for several reasons:

1. There is some warm-water discharge at the surface in the Hebgen Lake area.

2. There is weak evidence of elevated temperature in a well at Bakers hole (16 degrees C with background estimated to be 8 degrees C) as well as in the Polva flowing artesian well.

3. Hydrothermal outflow is also indicated by the chloride flux leaving this part of the Park.

4. The area contains a syncline which involves Madison-Group rocks which plunge toward the Park and which may recharge thermal systems in the Park.

5. The area is in a region of tectonic extension.

6. The area is close to the caldera rim.

7. The area is active seismically.

The second area extends from the Hebgen Fault along the north edge of Hebgen Lake. The boundary turns north roughly following the western edge of the Madison Group rocks in the Madison Range. This margin is the west limb of a south-east plunging synclinorium. Mississippian rocks are part of the structure and could recharge the system. Some deep recharge in fractures may also occur in this area. Based on what appears to be a fault cutoff near Cameron, Montana, the boundary was carried across the synclinorium north of the Madison Group outcrops to the Gallatin River and down the Gallatin River to the point where the River crosses the Madison Group. The

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Environmental Sciences Div.

Royal Teton Ranch
Box A, Corwin Springs, Montana 59021 406/848-7381

January 16, 1993

Mr. Steven L. Pilcher, Administrator
Environmental Sciences Division
MONTANA DEPARTMENT OF HEALTH
AND ENVIRONMENTAL SCIENCES
Cogswell Building
Helena, Montana 59620

RE: Comments in Response to Draft Supplement Environmental Impact Statement for Church Universal and Triumphant

Dear Mr. Pilcher:

The following information is provided for your review and possible use in producing the final document of the SEIS for the Church Universal and Triumphant. We were both directly involved in the preparation of the preliminary engineer's reports and drawings submitted to the Department for the proposed projects covered in the SEIS. We believe that the comments provided herein more accurately represent the intent or effects of the designs and clear up some inaccuracies stated in the DSEIS.

1) North Ranch Blue House (pages 2-3 and 4-36)

A mitigation measure for the North Ranch Blue House presented on page 2-3 of the DSEIS suggested moving the drainfield out of the 100 year flood plain of Trail Creek. ("Replacement of the Blue House Kitchen drainfield in an area outside the 100 year flood plain.") This comment suggests that the flood plain had previously been determined and that the drainfield is in that flood plain. Whereas, on page 4-36, the comment under "Alternative 3: Approval with Mitigation Plan" properly says "If the septic drainfield lies within the 100 year flood plain.." which is the more accurate representation of fact that the 100 year flood plain boundary is unknown.

The Ranch Kitchen/Cinnabar Campground 406/848-7891
Engineering and Construction 406/848-7811

Based on the location of the drainfield relative to the Blue House, the distance and relative elevation between the drainfield and the Trail Creek channel (south fork), the size of the Trail Creek channel, and the fact that Trail Creek splits into two channels approximately 400 yards upstream from the Blue House, we have a high confidence that the drainfield in its present location is beyond the boundary of the 100 year flood plain. The Trail Creek channel does meander but still remains more than 200 ft away from the drainfield at its closest point. In addition, this channel of the creek is more than 42 in. deep and by itself could carry more water than would normally be expected in the creek above the bifurcation.

We suggest that the comment on page 2-3 be edited to more accurately reflect the mitigation measure as defined on page 4-36.

2) Golden Age Village Water System (page 4-31 to 4-34)

In our professional opinions, the collection and analysis of well pump test data which the Church submitted in the summer of 1992 is the most accurate and precise manner in which to determine effects on groundwater. The analysis used in the SEIS (page 4-31), including the use of Walton's computer model, is inappropriate because there is no better indicator of the reaction of an aquifer than actual test data. An assumed storativity coefficient of 0.05 is used instead of the calculated coefficient, based on actual data, of between 0.1 and 0.2. Also, an estimate of 200 ft is reported as the distance to the closest well (Keathley) whereas the actual measured distance as reported by us is 62 ft. Correcting this error would significantly alter the results of the computer analysis by showing a lessened effect on surrounding wells as a result of pumping the GAV wells at a greater flow.

We recommend that the section entitled "Effects of Groundwater Appropriation" (p. 4-31) summarize (and evaluate as required) the test results and analysis that we submitted and not inappropriately use a computer model to infer results that are contrary to what was observed.

In the section entitled "Cumulative Effects" (p. 4-34), it appears as though the SEIS is confusing Fridley Creek drainage with North Fork of Fridley Creek drainage. Golden Age Village and most of North Glastonbury cannot really affect Fridley Creek drainage due to their distances of over ½ mile from that creek. The statement "Further development in this area will result in lower ground water levels and may cause some already marginal wells to go dry" sounds presumptuous. What facts support the statement that lower ground water levels will result, and where are the "marginal wells" which may be affected?

3) Golden Age Village Sewer System (pages 4-33 to 4-34)

The DSEIS devotes a significant amount of discussion to the possible effects from nutrient loading in the Yellowstone River but never comes to a definitive conclusion regarding the impacts from the Church's proposed projects, specifically Golden Age Village Phase II. On pages 4-37 through 4-39 under Section 4.2.3.8, "Effects on the Yellowstone River", several statements are made regarding this subject, for example: "These very small increases should result in minimal increases in algal biomass, especially if the saturation effects observed by Bothwell apply to the Yellowstone River." (p. 4-37, last sentence in Alternative 2), "Church activities are only one potential source of nutrients in the Yellowstone River. Fertilizers applied to agricultural crops are another source of nutrients that have not been evaluated but could effect algal growth in the Yellowstone River and its tributaries." (p. 4-38, second paragraph from bottom), "It was found that all parameters except Kjeldahl nitrogen decreased in this reach of the river at this time. This may be attributable to the presence of significant sources of nutrients at the upstream end of the system, such as the Gardiner waste water treatment discharge and naturally high nutrient levels from park thermal waters...It will be difficult to detect changes in the nutrient concentrations in the Yellowstone River against background loads of this magnitude." (p. 4-38, last paragraph & 4-39, top sentence). However, on this background the Alternative 3 of Section 4.2.3.6, Golden Age Village (p. 4-34, second paragraph) suggests that a lagoon for final treatment of waste water should be considered because treated effluent stored and spray irrigated would greatly reduce the nutrient load entering the ground.

In regards to the concern over "increased nutrients" from GAV Phase II causing contamination, we discussed the sewage treatment system in detail in the Golden Age Village at Glastonbury North/Phase II, Potable Water System and Sewage Treatment System, Preliminary Engineer's Report, Revision 0, and presented the Fixed-film Activated Sludge Treatment (FAST) sewage treatment plant specified for use in this system. We provided manufacturer's research material to substantiate our design criteria that less than 30 mg/l BOD and less than 10 mg/l of TSS would leave the sewage treatment plant. With this type of quality, we could apply for a permit to directly discharge the effluent into the North Fork of Fridley Creek. We have decided not to do this so that we could take advantage of the tertiary treatment to the effluent available from the soil absorption system.

The FAST system incorporates the primary and secondary stages of sewage treatment into one unit which produces effluent of much higher quality than a septic tank. The TSS and BOD of the effluent from the FAST system are 10% to 30% of what is possible from a standard septic tank. The application rate for this high quality effluent into the infiltration trench system was determined based on our assessment of the properties of the effluent to react with and not form a restrictive mat on the soil. Commentary on and excerpts from the research which supports the selection of this application rate as a conservative value is presented in an appendix in the engineer's report.

On page 4-33, Alternative 2, and page 4-34, Alternative 3, the SEIS states that "contamination" of the groundwater with "nutrients and bacteria" may result from our use of "deeper than conventional drainfield trenches". We think that this type of comment is overstated and misleading since the trenches are only 2.5 ft deeper than conventional drainfield trenches (5 ft 6 in. versus 3 ft 0 in.). Bacteria and viruses have been shown by Bouma, Gerba, Allen and Drewry to penetrate 3 to 6 ft below the bottom of the trench with an application rate of less than 50 cm/day (12 gpd/ft^2). At an application rate of 5 cm/day (1.2 gpd/ft^2), the penetration is expected to be a maximum of 3 ft. The groundwater table is at least 35 ft below the trenches if the assumption is made that the North Fork of Fridley Creek represents the groundwater level. To suggest that trenches which are only 2.5 ft deeper than conventional trenches can somehow cause bacteria to percolate to the groundwater table is an exaggeration of the fact that a trench which is 2.5 ft deeper can cause percolation of bacteria to be only 2.5 ft deeper than conventional drainfield trenches.

We are confident that the system as designed in the engineer's report is adequate and far superior to a lagoon for many reasons.

4) LaDuke Hot Spring (pages 4-39 to 4-40)

In Section 4.2.3.9, second to last paragraph on page 4-40, a statement is made that "pumping the well at any discharge rate is likely to have a direct affect on the flow from LaDuke Hot Spring". This statement is conjecture and not supported by facts. We monitored LaDuke Hot Spring while pumping our hot water well at 33.5 gpm and after 9 hrs, we detected no change to the water level at the weir on the west side of Highway 89. It is likely that recharge to the aquifer influences the effect on LaDuke Hot Spring. Pumping at such a low rate as 33.5 gpm may not produce a cone of influence that ever reaches the hot springs.

We think that the overall content of the DSEIS is reasonable and mitigation measures follow logically from facts presented, with some exceptions which are addressed herein and separately. We understand that not all editorial comments can be removed from the document but the document will be enhanced to the extent that these comments can be kept to a minimum. We appreciate the balanced treatment which has been applied by the Department to the multi-faceted issues covered in the DSEIS.

If we can be of any further assistance, please do not hesitate to call us at 848-7811.

Very truly yours,

ROYAL TETON ENGINEERING
AND CONSTRUCTION

William E Smith

William Smith, P.E.
Chief Engineer

Jeffrey McNabb

Jeffrey McNabb, P.E.
Project Engineer

WES/JGM:dmf

xc: Edward L. Francis

GARDINER
CHAMBER OF COMMERCE
P. O. Box 81
Gardiner, Montana 59030

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January 16, 1993

The Gardiner Chamber of Commerce wishes to make the following comments on the DSEIS. We were unable to make a presentation at the public hearing in Gardiner due to time constraints, so we appreciate the extension for written comments. Without it, we would not have been able to draft comments and bring them before a meeting of the membership before submitting them.

It is absolutely important to the town of Gardiner that the natural resources that are the basis of the tourist business here, are protected. The developments of the Church Universal and Triumphant threaten some of these resources.

The DSEIS doesn't look at the impacts of CUT's geothermal pumping, it puts that off to another time. We feel that this is wrong. CUT pumped its well at the end of June, 1992, and intends to continue pumping seasonally. We should be looking at the impacts of what is going on now, as well as consider what might go on in the future. Even with the small well, the hot water flow into the river is expected to stop and that is a major negative impact, both for fishermen and floaters. The pumping could diminish the geysers in Yellowstone Park and anything that might damage Yellowstone in that way is a disaster for this town and for a nation as a whole. The National Park Service feels strongly about this, but their views are not mentioned at all. What are those views? What are the arguments against allowing geothermal pumping. This document only talks about reasons why it is okay.

Another problem associated with the approval of CUT's projects as they are proposed is that a whole new town will spring up, almost as big as Gardiner, right under Devil's Slide. Spring Creek will be another busy trailer house village and it will be parked right under one of the great scenic attractions of this area. The traffic from there to Corwin Springs and the Ranch Headquarters is going to be constant judging from the number of people CUT intends to have there. Although CUT says they don't want to change the mostly rural character of this area, they are doing just that with their big, busy developments. Wouldn't it be better to [illegible] all those people in an improved Ranch Headquarters area or Corwin Springs itself. The traffic wouldn't have to go so far [illegible] aesthetics wouldn't be so bad at [illegible] Slide, and the [illegible] be kept wild and home to the many [illegible], pronghorn and [illegible] that use it all the time, and the elk that migrate th[illegible] area is especially valuable as winter range.

The aesthetics of the whole south side of the river from the Ranch Headquarters at the mouth of Mol Heron Creek to the Ranch Office complex near the Park boundary have been adversely impacted by CUT's previous developments. There are now three major trailer house developments and Spring Creek would be a fourth. The undeveloped, rural look of the land has been lost. This is also very apparent at night when CUT's developed areas are lit up like shopping malls. The impacts of the lights are not included in the DSEIS at all and Spring Creek will be worse than the others because it will be bigger. Those lights will be visible both directly from quite a few places and indirectly as reflection off of Cinnabar Mountain. These impacts should be included in the DSEIS and mitigations considered.

CUT presents many threats to Gardiner's economy. The threats to the natural resources are one thing, but there are others. The outbreak of measles one year and whooping cough another certainly made us nervous, and the publicity about those diseases is no good for the tourist trade. As long as CUT continues to have its big summer conferences this threat will continue, and who knows what will break out next.

The crisis that CUT created several years ago with its predictions of doom also created bad publicity for this area. The national media covered CUT's mass move underground. There were stories of armed guards and arms caches. Three CUT staff people have been arrested and two were convicted on Federal arms charges. For a short while there were reports of skinheads in the area. One chamber members tells of meeting a motel owner in Cody, Wyoming, last spring who said that she and her children were scared and offended one day when they were visiting in the Gardiner area. They mistakenly took the wrong road and ended up in the CUT Ranch Headquarters where they were met by armed guards.

The town of Gardiner also suffers from CUT saying derogatory things about it as a way of saying "what we're doing isn't so bad, look at how bad Gardiner is." This is not a neighborly way to be, and, again, it creates negative publicity which is no good for our tourist business.

Many chamber members consider it unfair to have to compete with the Ranch Kitchen, CUT's restaurant at Corwin Springs. The organization doesn't have to pay its help a living wage and the Ranch Kitchen operated under the tax exempt status of the Church Universal and Triumphant until 1991.

Many chamber members also are frustrated that there seems to be a double standard - CUT is able to go ahead and build projects without first getting the required permits and approvals, whereas the rest of us who are honest and apply first, have to go through the time, expense and uncertainty of the approval process. Just because CUT calls itself a religion doesn't mean that it should be exempt from the law.

Thank you for this opportunity to comment. We feel that the DHES should rewrite this draft to include important information they missed the first time around and also to offer some real alternatives that would truly lessen the many negative effects CUT will have. The number of new people being brought to this rural area by CUT is affecting every aspect of our lives, from traffic, to schools, to county taxes, to business, to the natural resources that are the basis of the quality of life we enjoy. Please include more information and more accurate information and see if that will lead to different conclusions as to alternatives and mitigations.

Sincerely,

Chris McIntosh

Chris McIntosh, President
Gardiner Chamber of Commerce

Greater Yellowstone Coalition

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January 17, 1993

Steve Pilcher
Montana Department of Health
and Environmental Sciences
Cogswell Building
Helena, MT 59620

Dear Mr. Pilcher:

The Greater Yellowstone Coalition would like to submit the following comments on the draft Supplemental EIS on the Church Universal and Triumphant developments. These comments are intended to supplement the statement offered by Lill Erickson on behalf of the Coalition at the public hearing in Gardiner.

Sincerely,

Jeanne-Marie Souvigney

Jeanne-Marie Souvigney
Associate Program Director

P.O. Box 1874 • Bozeman, Montana 59771 • (406) 586-1593 • FAX (406) 586-0851

Greater Yellowstone Coalition

COMMENTS OF GREATER YELLOWSTONE COALITION ON THE DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT ON CHURCH UNIVERSAL AND TRIUMPHANT DEVELOPMENTS

January 17, 1993

The Coalition is dismayed at what we view as an insufficient effort by the state to review on-going developments by CUT with the scrutiny they deserve. This SEIS continues the pattern established early on by the state of allowing large scale developments in this sensitive environment without the necessary and required comprehensive analysis of potential impacts and range of alternatives. It continues the totally inappropriate piecemeal approach to reviewing these developments and fails to fully address potential cumulative impacts. It implicitly endorses the applicant's past violations of Montana's regulations and agreements signed with the Department. The state fails to recognize the public water and sewer systems as public systems, and conduct the appropriate review as required by law.

The result is a very long and inefficient process that has proven costly to Montana taxpayers, and the loss of public confidence in this review and in the state's willingness or ability to protect its interests. Efforts to ensure public health and safety, and to protect this unique and very special area, particularly the geothermal resources, have been sadly compromised.

This SEIS demonstrates an appalling lack of recognition of the importance of this area by allowing proposed developments, most notably the Mol Heron bomb shelter and the Spring Creek headquarters, to be sited in inappropriate locations. It is misleading regarding past events, the developer's compliance with past mitigations, regulations and the 1989 Mitigation Agreement, and the developer's long-term intentions. It suggests a level of complacency on the part of the state that would not likely be allowed in any other development proposal of this size, such as a mining operation.

We request that the SEIS be revised to reflect these concerns and those raised by many others, with an appropriate range of alternatives, and be submitted for additional public comment.

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ALTERNATIVES

The revised EIS must include an adequate range of alternatives to the proposed action.

Under the Montana Environmental Policy Act (MEPA), the Department is required to conduct "an analysis of reasonable alternatives to the proposed action, including the alternative of no action and other reasonable alternatives that may or may not be within the jurisdiction of the agency to implement." There must also be a discussion of tradeoffs among alternatives. The notion that the developer's proposal was "divinely inspired" in no way relieves the Department of this requirement. In particular, alternative sites for the proposed headquarters at Spring Creek, and the Mol Heron bomb shelter, must be considered.

ENFORCEABLE MITIGATIONS

The revised EIS must include a discussion of mitigations, stipulations or other controls committed to and enforceable by the agency or another government agency.

MEPA also requires a discussion of mitigation measures, stipulations or other controls committed to and enforceable by a government agency. The revised DEIS must discuss such requirements. It is not appropriate to simply recommend the Multiple Species Conservation Plan; it should be required.

All development activity potentially affecting wetlands and riparian areas should be required to follow best management practices, with stricter protections within streamside management zones. Such practices should be monitored.

CUMULATIVE AND SECONDARY IMPACTS

The revised EIS should fully evaluate cumulative and secondary impacts of the proposed developments and all alternatives.

The SEIS fails to fully analyze the cumulative and secondary impacts of the proposed developments and alternatives. It must discuss reasonably foreseeable future impacts. For example, while this SEIS mentions the numbers of people these particular developments are designed to serve, it is clear that the developer's intentions are to serve far greater numbers of people. Appendix A suggests that the potential number of attendees could approach or exceed the entire population of Park County. MEPA requires that any growth-inducing or inhibiting impacts be analyzed in detail, yet this SEIS fails to do that. We also ask that better, more accurate maps be provided in the revised EIS; the DSEIS maps are misleading.

MEPA requires a detailed analysis of topics and impacts that are potentially significant, including social structures and mores, cultural uniqueness and diversity, access to and quality of recreational and Wilderness activities, and locally adopted environmental plans and goals. We believe that these issues have been virtually ignored.

In addition, this SEIS does not adequately discuss the relationship between short-term uses of the environment and the effect on maintenance and enhancement of the long-term productivity of the environment. This is also required by MEPA, and should be in the revised EIS.

Potential geothermal impacts are woefully ignored. Since this is a very serious concern for the Coalition, we have gone into this issue in depth. Please see section below.

The state of Montana and the National Park Service are in the midst of developing a long range bison management plan for bison living in the park. These bison often migrate outside the park along what some scientists have indicated are historical migration corridors. Past winter migrations have occurred on the developer's land. Ed Francis has indicated that if bison numbers were to approach some core herd minimum, the Royal Teton Ranch would somehow take appropriate action to help avoid further bison takings. How would the proposed developments affect any opportunity to do this?

PUBLIC WATER AND SEWER SYSTEMS

The revised EIS should properly designate the Mol Heron water and sewer facilities as public systems and proceed with appropriate review.

It is baffling how the state could have legitimately concluded that the water and sewer systems at the illegally built Mol Heron shelter, built to serve 750 people, are not public systems. Regardless of the consent decree, this SEIS must discuss the state's rationale for such a determination.

We believe the state must review those facilities for public health and engineering adequacy as required by state law, and must expand the revised EIS to include an analysis of the Mol Heron shelter and associated water and sewer systems and reasonable alternatives. The Department has inappropriately narrowed the scope of this EIS process in violation of MEPA requirements.

GEOTHERMAL

1. In the DEIS, the state entirely fails to mention the analysis and recommendations of the National Park Service, which conclude that there is a serious risk to Yellowstone Park's geysers if subsurface pumping within the Corwin Springs Known Geothermal Resource Area (KGRA) occurs.

The National Park Service's (NPS) report, "Corwin Springs Known Geothermal Resource Area Impact Analysis: Report to Congress," dated August, 1991, was developed at the same time as the U.S. Geological Survey's (USGS) report on the Corwin Springs KGRA. According to Congressional direction provided in the Geothermal Steam Act Amendments of 1987, this NPS report was to be submitted to Congress in conjunction with the USGS report, completed by Michael Sorey in 1991. Although this did not occur, the NPS report was eventually submitted to Congress over the course of hearings in the U.S. House and Senate in the fall of 1991 and 1992.

It is critical to note that the conclusions of the NPS report were radically different from those of the USGS. The Park Service stated:

> "Based on the USGS studies, NPS studies, and background information on the history of geothermal developments near and in other major geothermal areas of the world, the NPS has concluded that there is sufficient probability of connection between geothermal systems in Yellowstone National Park and those in the KGRA to warrant extreme concern over development of geothermal resources in the KGRA. In order to protect the integrity of Yellowstone Park geothermal resources, the NPS recommends that no sub-surface development of geothermal resources be permitted in the Corwin Springs KGRA."

The state of Montana inexplicably ignores the existence of this report by the very agency responsible for managing the Park and protecting its resources, and ignores the fact that the Park Service reached conclusions which stand in opposition to those of the USGS. For the state to essentially side with the USGS on an issue of such critical importance to the integrity of Yellowstone Park, while ignoring the Park Service's very different position, is unconscionable, and must be corrected in the revised EIS by including a detailed review of the NPS report and its recommendations.

2. In the DSEIS, the state entirely fails to mention the extensive congressional record on HR 3356, The Old Faithful Protection Act, regarding different interpretations within the USGS on potential impacts, particularly those articulated by Dr. Irving Friedman.

Enclosed for your review is the hearing testimony submitted by Dr. Irving Friedman on HR 3356, The Old Faithful Protection Act, in October, 1991. Of particular importance are the conclusions noted in his testimony. Dr. Friedman, a renowned expert on geothermal issues and a USGS scientist, states in his testimony:

> "Science tells us that in every place on this planet where geothermal development has occurred adjacent to geysers, the geysers were destroyed and could not be reactivated. Science also tells us the high technology solutions as applied to complex geothermal areas have a poor track record, and cannot be depended upon to absolutely protect the park. In determining the risks to the park by geothermal development in the Corwin Springs KGRA, science can go no further and philosophy must take over.
>
> "The USGS has been funded by Congress for over 15 years to investigate and help develop geothermal energy. Its philosophical bent will inevitably be to err on the side of development. This is shown by its response to both the Island Park threat and to the present controversy. In contrast, the NPS is funded by Congress to protect the parks, and its philosophy will be conditioned by this. I urge the committee and the Congress to err on the side of preservation, to accept the recommendations of the NPS Impact Analysis, and not to play Russian roulette with Yellowstone."

For the state to fail to acknowledge different views within the USGS is also unconscionable, given the amount of controversy over the issue. These deficiencies must be corrected in the revised EIS with a full explanation of the limitations of Mike Sorey's USGS report, and a thorough discussion of alternative interpretations of this data, including those of Dr. Irving Friedman.

3. In its discussion of impacts caused by geothermal development in the Corwin Springs KGRA, the state fails to recognize or discuss the potential for impacts on the complex ecology of the Yellowstone River.

The numerous springs and hot water upwellings that occur near or in the Yellowstone River between Bear Creek Springs and Corwin Springs have a direct effect on the ecology of the Yellowstone River. The heat and chemical character of the hot water from these sources affect the entire life chain, from the simplest protozoa to the most sophisticated predators. The introduction of these thermal waters into the Yellowstone River in this area could impact the cutthroat trout, a species of special concern to Montana, by improving the hospitality of the river in that stretch by moderating water temperature variations, while enhancing productivity of macroinvertebrate that support fish populations (Brad Shepherd, Montana Department of Fish, Wildlife and Parks, 1991).

The major factor limiting fish populations in the Yellowstone River is considered to be winter stress. The fate of the outflow of Bear Creek Springs and other thermal features under the Yellowstone River would be of particular interest to anyone concerned about the future of the fish populations in this part of the river. Furthermore, by keeping several miles of the Yellowstone River relatively open during cold times of winter weather, the hot springs of the LaDuke area and Bear Creek creates habitat for many animals, including waterfowl and birds of prey, such as osprey, bald eagles and peregrine falcons.

Despite these relationships, which are relatively well understood, the state gives essentially no consideration to the potential ecological impacts of geothermal developments in the KGRA. In its discussions of geothermal impacts on page 4-39, it limits the analysis to impacts of geothermal development on Yellowstone's geothermal features, rather than on the entire ecosystem of this portion of the Yellowstone River. This deficiency must be corrected in the revised EIS.

4. Since the Montana Reserved Water Rights Compact Commission has concluded that Yellowstone National Park has a legitimate property interest in the hot water aquifer int he Corwin Springs KGRA, it is appropriate and fitting that the geothermal development issue be thoroughly examined in a federal-level EIS.

Over the last several months, the state of Montana and the Department of Interior have been negotiating a geothermal monitoring and management program within the context of the Yellowstone Compact. These negotiations are predicated on the assumption that Yellowstone Park has a legitimate interest in the geothermal resources outside the park.

With a federal interest so clearly defined in these Compact negotiations, it is appropriate for the federal government to be directly involved in assessing the impacts of geothermal development at Corwin Springs, including those proposed by CUT. We recommend that the federal government be involved in a thorough federal-level analysis under requirements of the National Environmental Policy Act. In summary, because of the national significance of this issue[3], the state's recognition of the property rights of the National PArk Service, and the concern raised by a national level constituency for Yellowstone's geysers, we strongly urge that a separate EIS be conducted under the provisions of NEPA to evaluate the implications of geothermal development at Corwin Springs.

5. In discussion of impacts caused by geothermal development in the Corwin Springs KGRA, the state fails to recognize or discuss the health effects caused by excessive toxic radiation levels in the hot water at LaDuke and adjacent springs.

The revised EIS must include a thorough discussion of the high levels of radiation caused by radium and radon in the waters at LaDuke and adjacent springs in and outside Yellowstone Park around the Corwin Springs KGRA. It has been noted that the LaDuke springs area has been measured as high as 1,000 pico curries (Dave Love, pers. comm., 1993), although an accepted health level is 4 pico curries. Wayne Hamilton, geologist for Yellowstone National Park, has extensive data on radiation levels in these waters; this information must be included in the revised EIS with a discussion of the potential for serious health impacts on users of planned health spas at Corwin Springs.

FEES FOR EIS PREPARATION

The developer, not the taxpayer, should bear the financial costs of the EIS preparation, and all appropriate mitigation and enforcement activities.

We believe it is inappropriate to pass the costs for EIS preparation, mitigation and enforcement measures on to the taxpayer. This SEIS is required primarily because the developer did not disclose certain developments and development proposals during the earlier EIS process. The developer should pay these costs, not the taxpayer. In fact, MEPA regulations state that the fee assessed for preparation of the EIS must be based on the projected cost of acquiring all of the information and data needed for the EIS.

Greater Yellowstone Coalition

1-19-93

Steve -

These go along with our comments but were inadvertently left out of the mailing.

Please include w/ our comments —

Thanks

JMS

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JAN 20 1993

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STATEMENT OF DR. IRVING FRIEDMAN BEFORE THE SUBCOMMITTEE ON MINING AND NATURAL RESOURCES, HOUSE COMMITTEE ON INTERIOR AND INSULAR AFFAIRS CONCERNING H.R. 3359, A BILL TO AMEND THE GEOTHERMAL STEAM ACT OF 1970, AND FOR OTHER PURPOSES

OCTOBER 31, 1991

Mr. Chairman, members of the committee, I am Irving Friedman and am here as a private citizen. I wish to thank the committee for inviting me to testify today.

Before beginning my testimony let me summarize my professional record, a copy of which is attached with publications directly concerning Yellowstone highlighted.

I received a B.S. in Chemistry in 1941 from what is now Montana State University and a M.S. in Chemistry in 1943 from Washington State University. I then served two years as an electronic technician in the Navy. Upon my discharge from the Navy I was employed as a chemist by the Navy Dept. at the Naval Research Laboratory. I left this position to continue my education at the University of Chicago and was granted my doctorate in Geochemistry jointly by the departments of Geology and Chemistry in 1950. For the next two years I was a research associate at the Enrico Fermi Institute of Nuclear Science working with Professor Harold Urey on measurements of the abundance of light and heavy hydrogen in natural materials. In 1952 I joined the staff of the U.S. Geological Survey (USGS) primarily to construct and manage a laboratory to apply the measurement of the variation in stable isotope ratios to problems in the earth sciences. In addition, I have been active in research directed at understanding volcanic processes similar to those active in Yellowstone. During the past 46 years I have authored or co-authored more than 190 scientific papers and reports.

At various times I have been detailed to the International Atomic Energy Agency (IAEA) and have acted as an Expert in Isotope Hydrology in Iceland, Brazil, and Mexico. Beginning in 1977 I have been chairman of an IAEA panel on Stable Isotope Standards.

In brief, I am considered an international expert in the field of stable isotopes as applied to hydrology and geology.

Efforts by Congress to protect Yellowstone National Park (YNP).

In 1984, in response to threats to YNP by intended geothermal development in the Island Park Area adjacent to the west boundary of the Park, Congress amended the Geothermal Steam Act of 1970 to exclude development in this area. Unfortunately the wording of the Melchor amendment was such that it only excluded about 10 % of the area that was threatened.

The USGS position in regard to geothermal development adjacent to YNP

In 1979 the USGS, in response to inquiries by the Forest Service and Bureau of Land Management regarding the possible effects of geothermal development in the Island Park area adjacent to the west boundary of the Park, stated its position. Although geothermal development in New Zealand and the other localities adjacent to geysers had irreparably destroyed these fragile features, the authors of this USGS memorandum stated that "Although it our considered judgement that such effects would be unlikely, it is important that a cautious approach be included in eventual production strategies, both to monitor possible changes and to counteract them if they shall be detected." They continued with suggestions that one or more deep monitoring wells be drilled outside, but adjacent to, the Park boundary to detect any significant change in reservoir pressure, and if this occurs production would cease.

I expressed my criticism of this policy of Monitored and Controlled Development in letters to Dallas Peck, then Chief Geologist of the USGS, and to Alan Mebane, Chief Park Naturalist of YNP (copy attached-see A). Apparently the USGS position has not changed since 1979. My objections to this policy bear stating at this time because they are important in assessing the present USGS Corwin Springs report.

Monitoring- Objections are as follows: (1) Wells cannot be drilled until development of a geothermal field has begun, because until then it will not be possible to determine where they should be located, nor at what depth monitoring will be necessary; (2) Not only must the depth of the producing aquifer be known, but because these aquifers often consist of high and low permeability zones, the wells must be located in the proper permeability zone of the aquifer; and (3) In research wells drilled by the USGS in Yellowstone more than 20 years ago, the pressure fluctuated greatly with time due to a number of factors, including changes caused by frequent earthquakes and deposition of material that sealed rock fractures in the aquifer being monitored; (4) Since 1977 the USGS has monitored the depth-to-water in the Miller well located about 1/4 mile from La Duke Hot Springs. The water level remained fairly constant for ten years, but has declined 45 feet in the last 5 years. Two questions arise: How can these natural changes be differentiated from those caused by geothermal development, and how much of a pressure change will it take to affect the geysers and other thermal features of the Park? Neither of these questions can be answered.

Control- Geothermal development adjacent to the Park may not affect the Park for some time and probably not until major investments in wells and power plants have occurred. At this point, will it be realistically possible for the controlling agency - a government entity likely under political control - to enforce a cease and desist order, especially when the criteria for such action may be uncertain at best?

In short I do not believe that we can properly monitor and even less control geothermal development adjacent to the Park. To one who has seen many of the remaining major geothermal areas of the world, it is unthinkable that even the slightest risk be taken that might affect an area as unique as Yellowstone.

The present USGS Corwin Springs Known Geothermal Resource Area (KGRA) report and recommendations

In January, 1991 I received a copy of the preliminary report of the USGS Corwin Springs Investigations (now referenced as Water-Resources Investigations Report 91-4052, Michael L. Sorey, Editor) sent by John Varley, Chief of Research, YNP who solicited my comments. I disagreed with many of the report's conclusions which were drawn from stable isotopic data, my field of expertise. I sent these comments (copy attached-see B) to the authors of the pertinent section of the report. Simply put, my criticism concerns the use of stable isotope data to conclude that there is no hydrologic connection at present between La Duke and Mammoth Hot Springs. It is my opinion that the interprtation of the deuterium and oxygen-18 data are flawed as stated in my supporting documents, and do not permit any conclusions to be drawn concerning the connection or non-connection between these springs.

I also take issue with the conclusion in the USGS report that it is safe to allow pumping from the geothermal well drilled by the Church Universal and Triumphant (CUT) near La Duke Hot Spring at rates up to 25 liters per second (L/s). First, the water rights now owned by the CUT are limited to the flow of La Duke Hot Springs, measured as 7 L/s, and do not include rights to to 25 L/s. Second, the USGS assumes that all of this fluid will be derived from springs now exiting near La Duke, under the Yellowstone River, and along the banks of the river, and therefore there will be no effect on any aquifer that might connect to Yellowstone Park. Inasmuch as it is impossible to satisfactorily monitor any of these springs other than La Duke, the USGS has no assurance that additional pumping greater than 7 L/s will indeed come from the same aquifer that supplies the natural thermal-water outflow in the area. Theoretically it is possible to determine the amount of thermal water entering the Yellowstone River via underwater springs by measuring the amount of sulfate added by these underwater springs to the Yellowstone River. This can be done by measuring sulfate concentrations in the river above and below the Corwin Springs area. However, in practice these determinations are very inaccurate due to the dilution of the small amount of La Duke-type water by the large volume of the Yellowstone River. The same problem arises when attempting to measure the amount of thermal water entering the Yellowstone River in the vicinity of Bear Springs.

The committee may wonder at my concern expressed over the diversion of relatively small amounts of water. This concern is due to two facts: (1) The amount of water that discharges on the terraces at Mammoth Hot Springs and that is responsible for the extraordinary travertine deposits, is only about 25 L/s. (2) In a paper published in 1990 (copy attached-see C), Friedman and Norton concluded that the amount of thermal water that discharges at the Mammoth terraces is influenced by the height of the local water table. These two facts document a delicate balance in the Mammoth Hot Springs system and are the basis of concern that even relatively small diversions of thermal water from the Mammoth system could have serious consequences for one of the major thermal features of Yellowstone.

Finally the USGS report states that additional well production in the

Corwin Springs KGRA exceeding the natural thermal-water outflow could cause more substantial changes in pressure in the aquifer that might impact the Mammoth Hot Springs area, but that: "In this case a monitoring system with observation wells located near the Park boundary could provide early detection of the spread of head changes away from the development area and thereby reduce the risk of decreases in discharge of the Park's thermal springs. Additional subsurface information is needed, however, to enable such observation wells to be properly sited and completed."

In view of the extremely complex subsurface geology in this region as discussed in the USGS report, and also considering the probability of solution permeability in the Mission Canyon Limestone, which underlies both the Mammoth and La Duke areas and which may be an important aquifer, it will be an extremely difficult, if not impossible task to site observation wells in a manner that would insure that they will be in the proper place to provide absolute protection to Mammoth Hot Springs. Even if it were possible to so site these wells, it would require many years of observation of the natural variations in head in order to assure that effects of development could be differentiated from natural variations. In view of the probable effects of earthquakes and other tectonic events which occur at infrequent and random times, observation wells woulds be very expensive, and would seem to serve little purpose other than to provide a job for the drillers.

The USGS also mentions the possible mitigating action of re-injection of fluids. I would like to point out to the committee a recent published article (Science, vol. 253, p. 134-135, 1991) that discusses the serious decline in reservoir pressure experienced by the the world's largest geothermal development, The Geysers, located in northern California. Re-injection had been used but did not prevent decline of reservoir pressure. Re-injection is a complex procedure, because the fluids cannot be re-injected close to the producing well, but must be introduced into the same horizon, and, if the aquifer contains zones of high and low permeability, the re-injected fluids should be introduced into in a zone that is hydrologically contiguous with the producing zone. Re-injection is no panacea that will guarantee the safety of Yellowstone.

In January, 1991 John Varley, NPS assembled a team of specialists included hydrologists, geology, resource management, and environmental protection in Yellowstone to prepare an impact analysis and risk assessment on the Corwin Springs KGRS and invited me to participate. With the approval of my agency, I spent five days with this interagency (Park Service, Forest Service, USGS) panel which , and which produced a draft impact analysis, based on the draft of the USGS report that had been submitted to the Park. This NPS report was subsequently sent to the Secretary of Interior where it remains to this day. This report recommends that Congress "*Disallow all subsurface geothermal development, but permit use of natural gravity-driven surface flows at their sources.*"

CONCLUSION

In assessing possible damage to thermal features of Yellowstone Park by geothermal and other development adjacent to the Park, **Science** can go only so far, and then **Philosophy** takes over. In the case of the Corwin Springs KGRA **Science** has pointed out that geologic structures appear to exist that could link the Corwin Springs KGRA with Yellowstone. It also reveals that travertine isotopically and chemically similar to that being deposited in the Park is also being deposited today at Bear Springs in the Corwin Springs KGRA. In the recent past, as recently as 15,000 years ago, and also in the distant past, travertine similar to that being deposited today at Mammoth Hot Springs was deposited above the town of Gardiner, and in small amounts, within a half mile of La Duke Hot Springs. Therefore it is quite plausible that geologic connections exist between the Corwin Springs KGRA and the Park. Hydrologic connections can explain past alternations of travertine deposition between the Corwin Springs KGRA and Mammoth Hot Springs recent past, and may still exist today. **Science** also tells us that in every place on this planet where geothermal development has occurred adjacent to geysers, the geysers were destroyed and could not be reactivated. science also tells us that high technology solutions as applied to complex geothermal areas has a poor track record, and cannot be depended upon to absolutely protect the Park. In determining the risk to the Park by geothermal development in the Corwin Springs KGRA, **Science** can go no further and **Philosophy** must take over.

The USGS has been funded by Congress for over 15 years to investigate and help develop geothermal energy. Its philosophical bent will inevitably be to err on the side of development. This is shown by its response to both the Island Park threat and to the present controversy. In contrast, the NPS is funded by Congress to protect the parks, and its philosophy will be conditioned by this. I urge this committee and the Congress to err on the side of preservation, to accept the recommendations of the NPS Impact Analysis, and not to play Russian Roulette with Yellowstone.

HEADWATERS GROUP OF THE SIERRA CLUB
P.O. Box 1678, Bozeman, MT 59771
406-586-7671

15 January, 1993

RECEIVED
JAN 20 1993
MDHES
Environmental Sciences Div.

Mr. Tom Ellerhoff
Department of Health & Environmental Sciences
Cogswell Building
Capitol Station
Helena, MT 59620

Dear Mr. Ellerhoff,

We are concerned about the lack of information in the draft supplement Environmental Impact Statement on the Church Universal and Triumphant development north of Yellowstone National Park.

We understand this document deals only with the reinstallation of the 240,000 gallon diesel tanks; however, spill or accidents involving those tanks would have far-reaching effects that must be included for the EIS to be complete.

Development effects on grizzly bear habitat in the upper meadow should be detailed, including effects on cubbing in the immediate and surrounding area.

Mol Heron Creek is a rare resource, a spawning stream for cut-throat trout. Development will increase sedimentation in the creek; diesel spills would cause disastrous water pollution effects on Mol Heron Creek's ability to sustain the cut-throat, a species of concern. The EIS should give effects on this creek the serious consideration it deserves.

A recent report (new clipping enclosed) suggests close monitoring of geothermal wells that might affect water flow in Yellowstone Park. Heavy monitoring is recommended for the areas such as Mol Heron. The EIS must thoroughly address the effects of CUT developing the geothermal well it drilled. A diesel spill could be a spreading disaster to the underground water system, also. This should be thoroughly addressed in the EIS.

We feel that the EIS is incomplete. We will be unable to support this document until its deficiencies are remedied.

Please keep us appraised of all further developments regarding this EIS.

Sincerely,

Laura L. Kern

Laura L. Kern
Conservation Co-Chair, Headwaters Group of the Sierra Club

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JAN 19 1993

MDHES
Environmental Sciences Div.

Post Office Box 1563
Salt Lake City, UT 84110
Phone: 801/532-4796
Friday, January 15, 1993

Steven L. Pilcher, Administrator
Environmental Sciences Division
Department of Health and Environmental Sciences
Cogswell Building
Helena, MT 59620
Fax No. 406/444-2606

Dear Mr. Pilcher:

This letter presents the comments of the National Parks and Conservation Association (NPCA) on the Church Universal and Triumphant (CUT) Draft Supplement Environmental Impact Statement (SEIS). NPCA, a 300,000-member nonprofit environmental organization, was founded in 1919 to promote the protection, enhancement, and public understanding of the National Park System.

We have great concern about the potential impacts of the propsed CUT projects on Yellowstone National Park and the Greater Yellowstone Ecosystem. We request that you deny any permits or approvals for the projects described in the SEIS.

The Mol Heron shelter site is surrounded by Management Situation 1 grizzly bear habitat. Development and human activity here threatens to displace threatened grizzly bears from critical habitat. Food preparation during CUT's summer conferences at the Mol Heron would lead to increased human/bear contact and unavoidable conflicts that would result in taking of bears.

CUT's proposals would also adversely affect other species including winter range for mule deer, elk, and bighorn sheep and migration corridors for bison. Wildlife habitat is also threatened by introduction of exotic species (e.g., use of straw for sedimentation control on Mol Heron Creek).

The proposed developments also threaten the geothermal features of Yellowstone National Park and surrounding areas. Past actions clearly show CUT's intent to develop geothermal water and such connected action requires analysis in the SEIS. The SEIS fails to address scientific studies and conclusions that contradict the USGS report on the LaDuke geothermal area's connections to the park. CUT's past violations of mitigation agreed to in the EIS and Consent Decree underscore the need to protect geothermal features from new development.

The Mol Heron development and use would also negatively impact vistas from the park's backcountry. Access to Spring Creek and Mol Heron would require heavy truck traffic inside the park (because of weight restrictions on the Corwin Springs bridge).

The SEIS not only fails to adequately consider the above impacts, but also generally fails to quantify likely impacts, does not consider cumulative effects, and does not address additional development that CUT intends to complete.

For these reasons, we request that any permits or approvals be witheld. Thank you for your attention to these comments.

Sincerely,

Rod Greeno
Staff Assistant
Rocky Mountain Regional
Office

Northern Plains Resource Council

TESTIMONY OF RICHARD C. PARKS ON THE CHURCH UNIVERSAL AND TRIMPHANT DSEIS FOR DHES, 1/16/93, ON BEHALF OF THE NORTHERN PLAINS RESOURCE COUNCIL

My name is Richard Parks. I own and operate the Parks' Fly Shop here in Gardiner, a sporting goods store and fly fishing outfitting business. My address is P.O. Box 196. The quality of the water in the Yellowstone River and its tributaries, particularly those few which support spawning Cutthroat Trout, such as Mol Heron Creek, are of critical importance to the survival of my business. As it happens I am also the Chairman of the Northern Plains Resource Council. NPRC members are ranchers, small business persons and other folks all across this state who share a commitment to clean air, clean water, responsible land stewardship and community self- determination.

This Draft Supplemental Environmental Impact Statement contains several errors of fact, more numerous erroneous interpretations of the causal relationships of events and impacts - and most important, some absolutely fatal flaws. It is my intention to go through the document, chapter by chapter, identify errors and present alternatives and questions for the Department to use in rewriting it.

CHAPTER 1

1. On page 1-2 we find, "The Church said the decision to build the shelter in the Mol Heron drainage occured after the review." While this is in fact what the applicant said, the Department is aware that the statement is not accurate. Clear evidence, including the records of the vendor of material used in the construction of the shelter and the personal testimony of subpoenable witnesses demonstrates that the shelter was planned, and planned for that location, for at least a year prior to the date on which construction began in mid 1989. I recognize that the consent decree entered into late in 1991 precludes the Department from prosecuting the violation created by the shelter construction. It remains imperative that this document accurately reflect the sequence of events by not contributing to a conspiracy to conceal the record.

Will the Department correct this sentence to read, "The Church claim that the decision to build the shelter occurred after the review was contrary to fact. This, therefore, became an element in the eventual decision to reopen the review process."?

2. On page 1-10 we find "Montana law, in section 75-6-112, Montana Code Annotated (MCA) requires that plans and specifications for water and wastewater systems serving 25 or more persons be reviewed for public health and engineering adequacy." Since no part of the sentence is in quotes the Department hasn't exactly misquoted the statute but the section requires that "systems ***designed to serve or*** serving 25 or more persons" be reviewed (emphasis added). This is a critical omission. It can not be accidental as it is the Department's fundamental authority. The implications of this omission are discussed below. Will the Department, as it must, restore the missing language so that the sentence reads; "Montana law, in section 75-6-112, Montana Code Annotated (MCA) requires that plans and specifications for water and wastewater systems designed to serve or serving 25 or more persons be reviewed for public health and engineering adequacy."?

3. On page 1-3 we find out, during the discussion of the consent decree entered into on October 18, 1991, why the Department is not being clear about what the statute requires. The Department, at least arguably, has the authority not to prosecute (under the terms of the consent decree) but here we find, "The DHES agreed that the water and wastewater systems at the Mol Heron shelter are not 'public' systems, and therefore would not require State review and approval." To conclude that a housing complex for 750 persons doesn't meet the criteria for consideration as a public water and sewer system is bizarre.

The consent decree entered into between the applicant and the State is an extraordinary document to say the least. It was negotiated in secret and signed in haste, perhaps to prevent it's being challenged. It not only settled the penalties associated with the 1990 fuel spill - its proper role - it also determined the scope of the process in which we are now engaged. It specifically asserts that the shelter complex does not fall within the meaning of a public water or sewer system. It seems to me that this means one of two things: either the entire process we are engaged in is a fraud perpetrated upon the public by pretending that information developed during this environmental review can influence its outcome, or it only constitutes a provisional decision which may be revisited if new data warrants revision. On page 8 of the consent decree we find in the stipulations the statement that, "The Department reserves all rights and authorities under State law concerning licenses, permits and approvals issued to the Church should just cause be found." This is the Department's escape hatch from the charge of fraud we would otherwise be compelled to consider.

Despite overwhelming information to the contrary the Department chose to make this determination based on a promise issued by a convicted felon On page 1-16 of the DSEIS we find that the proposed action is to install 6 fuel tanks with a total capacity of 240,000 gallons. On page 3-13 the proposed generator system that will use this fuel is described. It consists of 13 generators (6 designated as backups) using 1.5 gph of fuel and one using 4.25 gph. If we assume that all 14 generators are operated 24 hours per day untill the fuel supply is exhausted we find that they consume 23.75 gph or 10105+ hours of run time, 421 days. That's almost exactly a year longer than contemplated by the consent decree. It works out to 678 days if the backups are off-line.

This is hard statistical data provided by the applicant that demonstrates beyond contention that the promise is void because the design life and intended use of the shelter complex vastly exceeds the 60 day limit which escapes the definition of a "public system." The sewer and water systems for the shelter must be found to be "public" and must therefore require permits. Will this be the finding, and if not, why not? This is of critical importance to the water quality of Mol Heron Creek because it seems to me that this level of usage in the area, based on the likely design of such systems, would quickly overload the area's capacity to absorb and process sewage with a consequent discharge of raw sewage to the stream. An alternative solution would be to limit fuel storage to the promised service time which works out to 34200 gallons at maximum. Other obvious alternatives exist and will be discussed below

4. On page 1-22 we find, "Attendance for future years is expected by the Church to run from 4,000 to 6,000." This specifically refers to the anticipated attendance at the annual summer confrences. The source of this figure is presumed to be the applicant but it is not clear when it was supplied or by whom. Will you please site a reference for this data?

What is clear is that this number, as is true of others provided by the applicant, does not match their intent. It is also clear that the Department used it in conducting their impact analysis. Attached to my statement is a copy of part of a publication produced by the applicant. (Appendix **A**) The simple historical record is that in 1981-2, when the applicant had about 50 people here, and was telling the local community that represented their intended population; they were telling their membership many more were required. At each level of population increase the applicant was asked to identify what they expected their eventual population to be. Each time the response was to indicate that the then existing, or a slightly higher level, was all that was anticipated. Each time the internal communications indicated an intention to move in many more people.

The highlighted material in Appendix A is clear evidence that the applicant means to have 8,400 to 12,600 attendees (based on the 4,200 claimed for the 1992 confrence) at the confrence as early as 1993. These internal communications are a more accurate reflection of intent and performance than their letters to the Department. Will the Department recast the impact analysis on the basis of the intended number of 12,600? This is a specific case of the gobal problem of accepting the applicant's numbers on population and there will be more discussion below.

5. Maps 1-3, 1-4 and 1-6 are known to be seriously misleading and the text that describes the proposed developments is inadequate. Map 1-3 purports to be a map of the "Spring Creek Headquarters Site" yet there is little possibility that the projected population of 519 (see p.4-64) will fit in the mapped quarters. Map 1-3 locates a total of 68 structures (30 identified as housing). It isn't untill we get to page 4-49 that we discover that the actual intent is to locate 92 structures here, 56 of which are housing units. Will the Department rewrite the text to clarify the actual intent? Furthermore the text on page 1-14 says, "The size of the proposed development area in the SEIS has been increased to approximately 75 acres. (from 60 acres) Additional area will be occupied by the wastewater lagoon and water storage pond." We have to get to page 4-22 befor we discover that the sewage plant will occupy about 18 acres bringing the total to 93 acres. Will the Department rewrite this section to clarify the actual intent?

Map 1-4 purports to be a map of the "Corwin Springs Area". Numerous trailers or modular building units present on the ground do not appear on the map. The recent loss of the second of two trailers to a fire in the trailer park behind the "Ranch Kitchen" is, at least partly, due to the close spacing of these units.

Map 1-6 purports to be a map of the "Ranch Headquarters Area." Again numerous structures, including the guard house at the main gate, do not appear on the map. The road alignments are inaccurate, in particular the new road from the old "Trestle Ranch" buildings to the "new residence" is missing entirely, the county road along the river is not clearly delineated, and the main access road is poorly identified. The ground disturbances associated with the so called "new residence" are not at all accurately depicted on this map.

Will the Department require the applicant to provide accurate maps of these development areas?

CHAPTER TWO

6. On page 2-1 we find the DSEIS' most glaring fatal flaw - **THE EXCLUSION OF REASONABLE ALTERNATIVES BASED ON THE NOTION OF "RELIGIOUS REVELATION."** The Montana Environmental Policy Act requires that analysis include reasonable alternatives so there is a basis to judge the validity of the eventually selected prefered alternative. The Department's own rules require it to "consider any precedent that would be set as a result of an impact of the proposed action that would commit the department to future actions with significant impacts or a decision in principle about such future actions ". The Constitution protects religious belief, it does not protect illegal behavior It is clear that the best and simplest method of mitigating impacts is to avoid them altogether and that most often the easiest way to do this is to locate something in some other spot. For instance, at Cooke City, Noranda identified over 20 possible sites for tailings disposal, surveyed 4 in great detail and did major design work for two of them because their initially prefered alternative turned out to have substantial problems.

The Department advances three generic alternatives that are applied, willy nilly, to each project regardless of site specific or project specific circumstances. These are 1) Denial, 2) Approval and 3) Approval with Mitigation Plan. On page 2-1 of the DSEIS the Department explains: "Alternatives that would require the Church to relocate their proposals were not considered for the following reason... The First Judicial District Court found that '...it certainly does not make any sense to consider locating their proposal on other Park County properties' because 'The Church feels that the RTR-S property is divinely inspired for their purpose.'"

It is important to understand the context of this conclusion.' This decision applied only to those actions contemplated by the original EIS. So far as I can determine from the applicant's public statements we are meant to understand that they consider the Taylor Meadow as the "divinely inspired" confrence site and RTR-S generally as the "divinely inspired" general location of their headquarters and its associated developments and activities. Nothing in this context suggests that alternative locations on RTR-S should not be considered. Nothing in this context suggests that developments not analyzed during the original EIS should be covered by this decision. The applicant's own internal publications make clear that they believed themselves to have scope, within the mandate of "divine inspiration," to make siting choices

During the original EIS the probable location of bomb shelters was raised as an issue, and ignored by the Department. It was raised again during the law suit when the judge himself asked the question. Mr Francis courted another stint in jail with his answer which came within a whisker, in my opinion, of perjury. His answer was certainly intended to mislead the judge, the Department and the public His answer succeeded in misleading the judge and the Department though I submit that the public was less credulous. In any case, within a matter of days, the shelter project was in full swing. For the State to permit the shelter to continue to exist at this site is to establish a clear precedent of a "decision in principle about ... future actions." That precedent is that anyone who doesn't like complying with our laws and permitting regulations, rules intended to protect our health and environment, should go ahead and do what they want anyway. They can do this confident that the Department will neither apply sanctions nor take corrective actions.

When the shelter complex became public knowledge the applicant did attempt to ascribe its location to "religious revelation." Unfortunately the record indicates that it was no such thing. Appendix A of the DSEIS fails to describe the real nature and purpose of much of the tangled web of corporate entities created by the applicant to conceal their actions. Between that information and certain video tapes produced by the applicant for internal consumption it is clear to me that the shelter complex had been in planning for several years prior to the actual construction. During this time period the applicant misrepresented that fact to the Department, the public and a court of law During this time period the applicant spoke and behaved internally as if he were free to make choices about the location of any facility the corporate entity desired. I believe the Department is aware of these facts and has copies of the video tapes which make them clear. If not, we will be happy to supply them.

The failure to develop and consider alternatives based on location is particularly striking in the case of the Mol Heron Shelter and the "Spring Creek Site." The shelter complex is very poorly sited, as a shelter, because of the risk to the environment on the one hand, and equally important, the improbability of being able to use it for the alleged purpose should the need arise. Any shelter that takes hours to access and occupy is useless where it is. The "Church Headquarters" development identified as the "Spring Creek" site is also poorly located to meet the presumed criteria of the developer. This activity and population would be much better sited at either the "Ranch Headquarters" area at the mouth of Mol Heron Creek or at Corwin Springs.

I submit that the Department should add the following alternative to the list: "4) Approve with Mitigation Plan and Recommendations at an Alternate Location. Under this alternative, as under alternative 2 the applicant would be required to meet all technical review criteria and impacts that would be associated with alternative 3 would be further reduced by avoidance or the more comprehensive mitigations available through scale or concentration." Will the Department so require, and if not, why not? I will discuss specific applications of this with my comments on Chapter 4.

7. The list of identified mitigation measures that begins on page 2-3 is inadequate in three main ways. In the first place, any measure likely to result in actual mitigation, such as the development and adoption of a "Multiple Species Conservation Plan", is merely recommended for later consideration. This list includes conducting a baseline invertebrate study on Mol Heron Creek, mapping the plant communities, conducting a Class III cultural inventory and completing the fire protection plans. This latter is particularly striking given the recent fire. Will the Department change these recommendations to requirements?

In the second place the mitigations aimed at reducing sedimentation seem to be minimal. The full range of best managment practices should be required. This is especially important for Mol Heron because of its critical importance to the Cutthroat and the suspected damage that has already been done. Will BMP's be required?

In the third place there is no independent monitoring program or means of enforcement identified. Because the original mitigation plan, described as a contract between the applicant and the Department, is known to have been violated at least twice it would seem prudent to provide for a regular monitoring program that has built into it some penalties as a deterrent to their casual violation. Will the Department require a monitoring program and if not, why not?

8. On page 2-6 and following, there is a discussion of the criteria to be used in evaluating the primary, secondary and cumulative impacts of the developments. It appears that cumulative impacts are being defined as those impacts associated with further, unknown at this point, developments which may or may not take place. In fact cumulative impacts are meant to include those impacts that are a consequence of the aggregation of multiple developments in the same area. Again this is of particular importance for Mol Heron Creek. Will the Department identify and consider all of the elements involved in cumulative impacts?

9. It should be noted on page 2-8 that the actual 1992 visitation for Yellowstone was 3.1 million. Will this correction be made?

10. On page 2-8 under the discussion of irretrievable commitments of environmental resources we find; "A portion of the mining town of Horr occupied very nearly the same area as proposed now for the Spring Creek development, but visual remnants of the town are virtually undetectable to the casual observer." This is a serious misrepresentation of the facts. No part of the town of Electric (which had been quickly renamed for reasons obvious to everyone, including, I suspect its founder Colonel Horr) was located on the "Spring Creek Site."

I think a check with an historical authority would find that the "Spring Creek Site" was devoid of substantial human activity with the exception of possible aboriginal camp sites, agriculture and a check dam in the Spring Creek channel to trap coal slack. Many of the buildings that were originally located at Electric, sometimes also refered to as Cinnabar, were moved to Gardiner when the railroad was completed. The Parks' Fly Shop occupied one of those buildings for a number of years. Most of the remaining structures were removed by previous owners of the property, notably Mr. Kosbate and Mr. Forbes. It takes a **very** casual observer to miss the principle surviving artifact - the row of coke ovens. It is clear that this discussion has the effect, if not the intent, of trivializing the degree to which developments will constitute a long term commitment of resources absent a reclamation plan or other investment of human effort. Will the Department correct this section to reflect the actual commitment of resources being made by these activities?

11. On page 2-9 we find, "Related impacts, such as impacts of geothermal development, may constitute an irreversible/irretrievable commitment. ... It is not the purpose of this SEIS to make that determination." On page 2-3 under mitigations we find, "The geothermal well drilled to tap the the aquifer serving LaDuke Hot Spring will only be used in accordance with the terms and conditions of the Certificate of Water Right issued by DNRC...." If my information is correct DNRC issued a certificate for a ground water right less than 35 gpm, despite the fact that the water had been withdrawn from the well in violation of the previous mitigation agreement attached to the first EIS. Either DNRC must void its certificate or the Department must consider the impacts of using this well because it is a clearly connected action. Which will it be?

12. Under a discussion of alleged economic benefits of the proposed action on page 2-9 we find the assertions that the local economies and governments will continue to benefit from the purchase of goods and services and the payment of taxes. Unfortunately this overlooks the fact that the purchases are made in bulk wholesale elsewhere and the taxes do not cover the increased costs associated with the developments, partly because the major new buildings, at the "Spring Creek Site" are likely to be considered exempt. Will the Department correct this section to read:
"1. Local economies will continue to realize a small benefit from the purchase of incidental goods and services;
2. Local governments will realize some increased taxes from the land and improvements scheduled for development;"?

13. On page 2-10 we find the Department citing, as an environmental benefit, "...efficient clustering of development would occur and displace less land than dispersed depelopment." Unfortunately the applicant's proposals multiply impacts by putting "clusters" just about everywhere you look. Between Mol Heron Creek, with the "Ranch Headquarters Area", the Corwin Springs Area and the "Spring Creek Site" the applicant has chosen to develop three towns within the space of three miles. Will the Department please explain how this large scale dispersed development constitutes "efficient clustering of devlopment"? The Department and the applicant need to come to grips with the consequences of 900 people doing what people do everyday. They need to be collected into one site. One real sewer system and treatment plant that serves all of them effectively needs to be put in place. In this regard, the Spring Creek development is at least beginning to recognize reality, even if it is badly sited.

14. Also on page 2-10 we find this curious statement, "Unlike other developments of similar size, the Church development will not directly result in employment increases that offset environmental losses." Employment increases never "offset" environmental losses - they just make them slightly more palatable. Environmental losses can only be "offset" by post-project reclamation activities or compensatory remediation of pre-existing damage - neither of which is offered by the applicant. Will the Department rewrite this paragraph along these lines:

"Because the Church purports self-sufficiency and because it pays its staff based on need, this development and related employment will not generate the secondary employment usually expected from projects of this scale. Future economic benefits will be limited to those associated with property taxes, such local purchases as the applicant choses to make and the incidental purchases of non-staff Church members resident in or visiting the area. No substantial reclamation or compensatory remediation is proposed by the applicant to offset environmental losses."?

CHAPTER 3

15. On page 3-2 we find under 2(a) the following statement: "Mol Heron Yellow Barn, built for storage and did not require state permits or licenses," as part of the summary of projects built since the last EIS was completed. While it is possible that the Yellow Barn did not require permits the Department knows that this is an erroneous explanation of its function. It was in fact built, during the summer of 1988, as the plant to prefabricate components of the shelter erected the next year. Will the Department correct this statement to read, "Mol Heron Yellow Barn, built as an assembly plant for shelter components and later used for storage which did not require state permits or licenses,"?

16. The review of the applicant's compliance with the original mitigation agreement is inaccurate. On page 3-4, item (e), it is claimed that the applicant complied with the agreement to confine sheep to that area north of Mol Heron Creek. The Department and the contractor working on this DSEIS were both informed in July of 1992 that the applicant did, in fact, have sheep in the exclusion zone. Will the Department add the following to the end of the first paragraph on page 3-5; "On at least one occasion at the end of June 1992 the Church had sheep on their private land in the exclusion area south of Mol Heron Creek."?

On page 3-5, under (i) we find, "Revegetation efforts were undertaken at the East Gate Work Camp,...." I have seen no evidence of successful revegitation of any sort at the "East Gate" area. In fact a large salvage soil pile on the site is often the source of considerable blowing dust. The text should be corrected accordingly and this information incorporated.

On page 3-6, under (n) we find that proposals to carry out the monitoring plan was submitted on June 19,1992, three years after final approval. No permits of any sort should be approved untill the monitoring plans are complete and approved. Will the Department act accordingly?

On page 3-7, under (r) (see also page 3-49) we find the discussion of the applicant's violation of their agreement not to utilize the illegelly developed geothermal well. The amazing thing to me about this whole discussion is that the Department seems perfectly comfortable with the idea that a 35 gpm well presents no concern. How about 10 of them? It is clear that the applicant has a desire to use a large volumn of geothermal water. At what point will the either the Department and/or DNRC take notice?

17. On page 3-11 we find Mr. Francis being quoted in regard to the aliquot division of RTR-S thusly; "Interestingly enough, after the aliquot division occurred the zoning proposal was then dropped." In point of fact there was no zoning proposal. There was a county master land use plan proposal which might have eventually led to a zoning plan. The applicant successfully orchestrated the opposition to the proposal and it was defeated in an election. As indicated on page 3-118 a majority of Park County citizens continue to identify land use planning at the county level as something that should be undertaken. The fact is that the applicant, more than any other single factor, acts as a dead hand on this county, paralyzing the planner, swamping the planning office, and preventing the commission from taking substantial steps to develop **any** planning proposal. It is also interesting to note that part of RTR-S has been "sold" to Mr. Edwin Johnson, the Church member who is their "house outfitter."

18. On page 3-13 the first paragraph catalogs the 630,000 gallons of storage for "petroleum products" and then concludes the paragraph by noting the additional presence of "eight 30,000 gallon ... liquid propane... tanks." By appending this data as an afterthought it is not clear to the casual reader of this document that we are in fact discussing storage of 870,000 gallons of product. Will the Department rewrite this paragraph to read, "The shelter had 43 underground tanks that were storing 870,000 gal of petroleum products. The tanks included 8-30,000 gal. liquid propane (LP) tanks, 26-20,000 gal. diesel tanks, 5-20,000 gal gasoline tanks, two tanks (one 6,000 gal. and the other 5,000 gal.) containing motor oil, a 1,500 gal. tank with hydraulic fluid and a 2,000 gal. tank of antifreeze."

19. At the bottom of page 3-13 we read, "The possibilities include the installation of holding tanks or a septic tank and drainfield sewage disposal system designed to be used for less than 60 days or in the event of a nuclear war." How do you "design" a system in such a way that it can only be used for "60 days or in the event of nuclear war?" I submit that such a design criteria is impossible to meet. The system either works or it doesn't. If it works, it can work for a long period, if it doesn't it shouldn't pass permiting under any circumstances. We have already discussed why the Department can not escape concluding that the shelters contain public water and wastewater systems.

20. On page 3-15 we find, "All underground storage tanks were exhumed by June 26, 1990...." According to my information this is in error. The eight 30,000 gal. LP tanks are still in place. Will the Department correct this paragraph to reflect the actual situation? What permits are required if the applicant choses to retain the "frac tanks" as a permanent installation, as seems probable given their record?

21. On page 3-18 we find, "The South Ranch (spread) field has not been used for several years." That is correct but fails to tell the story. The South Ranch spread field is the location, permited for 30,000 gallons of septic sludge, that recieved approximately 1,000,000 gallons of raw sewage. This dumping was discovered in December of 1989 and the field has not been used since. Will the Department rewrite the last paragraph of that section to read, "Because the applicant was discovered to have applied about 1,000,000 gallons of raw sewage to the South Ranch spread field during 1989, far in excess of the 30,000 gallons covered by the permit; spread fields are now approved on an event-by-event basis by the Park County Sanitarian's Office...."?

22. On page 3-21 we find, "The original EIS underrepresented the importance of this area to bald eagles, possibly because the Bear Creek ... nest was unknown at the time." My recollection is that several persons commented on the inadequacy of the first EIS's coverage of bald eagles. Will this paragraph be rewritten to reflect the facts of the case on these lines; "The original EIS underrepresented the importance of this area to bald eagles. Since the discovery in May 1988 of the reoccupation of the Bear Creek bald eagle nest it is no longer possible to ignor the importance of this area. The eagles of the Bear Creek nest have fledged..... Additional eagles forage throughout this area and Paradise Valley during the winter months."?

23. On page 3-28 of the DSEIS it is asserted that, "Mol Heron Creek was historically dewatered for agricultural activities; however due to reduced demands and use of existing water rights by the Church, the creek currently flows year round." This is an error of fact. I have lived here since 1953. Never in my memory has Mol Heron been dewatered by agriculture or anything else. That is why it is one of the few (see page 3-27) useful Cutthroat spawning streams. It is also suggested on this and the next page that the relative failure of the 1991 year class is due to "sediment and debris loads" caused by "intense thunderstorms" and "as a result of ...(the 1988) fires." This is a transparent attempt to gloss over the probable effects of the extensive construction and other ground disturbances of the applicant in the drainage. I personally witnessed one 1991 turbidity event that was not connected to the fires or storm activity as it had not rained for days.

The Department has an obligation, deriving most directly from the Constitution of this state, and secondarily from both the state and Federal Water Quality Acts, to maintain or improve the quality of the state's water. It is admitted on page 3-24, 3-40 and 4-2 that no real water quality baseline has been established for Mol Heron Creek. The original EIS's only concession to the logically imperative requirement to provide baseline data was to "...assume that the water quality is high." The Mol Heron drainage is small relative to the scale of the impacts proposed. This makes it imperative that a complete water quality baseline be developed upon which to base a means of judging the effectiveness of mitigation measures and compliance enforcement of water quality standards. Will you develop such a baseline and if not, why not? The inadequacy of the existing mitigation plan, as demonstrated by the loss of the 1991 year class in Mol Heron Creek, argues that it should be required, not, "recommended to consider," entering into the Multiple Species Conservation Planning process. Naturally the costs should be born by the applicant. Will the mitigation plan adopted provide for this, and if not, why not? Will the Department rewrite the material on pages 3-28 and 3-29 to correct the errors pointed out above, and if not, why not?

24. On page 3-31 in section 3.3.3.1 we find a general discussion of water resources issues. This section would be greatly strengthened by the addition of material on the other spills experienced on the applicant's property. (see comment #49) Will such material be added, and if not, why not? Based on the last paragraph on this page it is not clear to me that the drafter understands either cumulative impacts or the consequences of spills. This paragraph sounds as if it is trying to say that small spills will only effect small areas so they don't matter. Will the Department redraft this paragraph to be clear about what is meant?

25. On page 3-37 we find, in refrence to ground water at the "East Gate" site, the following: "It is possible that the uppermost aquifer discharges to the Yellowstone River, but there is insufficient information to make this determination." No well log data is appended to provide information as to the vertical location of this aquifer relative to the location of the "East Gate" drainfields. Don't you think the Department is obligated to find out whether there is a hydrologic connection between this aquifer and the Yellowstone River befor it authorizes drainfields that may impact it?

26. On page 3-38 we find, in refrence to the instream flow agreement alledgedly worked out between the applicant and Yellowstone Park, the following: "The written agreement provides for maintenance of an instream flow of 1.25 cfs during the spring and summer." That may be the agreement but I can tell you that Reese Creek was completely dewatered for a period of at least one month in August of 1992. The Department needs to make a specific inquiry on this point to Yellowstone Park and correct the record to reflect the actual state of affairs. Will this be done and if not, why not?

27. The discussion of proposed geothermal legislation on the top of page 3-51 is obsolete. The Senate did not pass the bill discussed and now the Reserved Water Rights Commission is preparing something as well. Will the Department rewrite this section to reflect the extreme uncertainty of what will happen and when?

28. On page 3-55 it is claimed that the Miller well is pumped at 25 gpm. That is not in fact the case. My understanding is that it was tested at that rate but in fact is only occasionally pumped for monitoring purposes at a rate of about 1.5 gpm. Will the Department rewrite this section to reflect the actual state of affairs?

29. On page 3-61 we find, "The upper Mol Heron Creek was ***chosen*** (emphasis added) for the nuclear fallout shelter site, partly because it had a history of human activity." This is further evidence that the theory that "divine inspiration" had something to do with the decision to build the shelter where it was built is bunk.

30. The material quoted from the Royal Teton News of 1983 on page 3-61 should attract the Department's attention to the way in which the development at the "Confrence Site" has destroyed a wetland. Will the Department do a more thorough analysis of the wetlands issue and rewrite the DSEIS to reflect that information and analysis, and if not, why not?

31. On page 3-63 we find a discussion of viewsheds. That discussion is inadequate in at least two instances. In the first place it should be noted that The Devil's Slide is a significant feature of the upper valley. Will the Department rewrite the draft to reflect that along these lines; "The Devil's Slide outcrop is a prominent feature on the east end of Cinnabar Mountain, overlooking the proposed "Spring Creek Site." Because of the unusual geology and wildlife viewing opportunities exhibited here it is a popular stopping place for visitors to the region."? Secondly, with regard to the developments in the Glastonbury area, the phrasing used underrepresents the actual visual impact. Will the Department redraft this to read; "Some of Glastonbury North and much of Glastonbury South is visible from US 89."?

32. In the discussion of winds, section 3.3.8.2 on page 3-64 we find the following; "On the ground, air tends to move upslope in the morning. As the land warms during the day, the flow reverses, sending the air downslope." Unfortunately the contactor's person who interviewed me got their notes scrambled on this one. In fact the flow is cold air downslope in the morning and upslope warm air in the afternoons. Will the Department correct this to reflect the actual facts?

On the next page we find, "The main air quality concern is the impact of fugutive dust from construction....and dust generated by extra traffic on dirt roads.... Fugitive dust from construction is considered a temporary source...." This would be so if construction ever stopped and the distrubed ground were reclaimed. So far there is no evidence that such will ever be the case. Will the Department rewrite this paragraph to reflect the level of concern and the actual conditions along these lines; " The main air quality concern is the impact of fugutive dust from the apparently endless construction activities....."?

33. Here we go again. On page 3-72 the language of Chapter 75 MCA is again misrepresented. See comment *2.

34. On page 3-73 we find; "The Glastonbury properties are generically referred to in this SEIS as subdivisions, but these properties are divided into parcels 20 acres or greater and are therefore exempt from local review under state law." As the discussion on page 3-75 demonstrates the Department is well aware that this statement is not accurate. Many of the so called 20 acre lots have been redivided in violation of the law. Will the Department rewrite this paragraph to reflect the actual state of affairs thusly; " The Glastonbury properties are generically referred to in this SEIS as subdivisions. While some of these properties are still divided into parcels exceeding 20 acres, and therefore are exempt from local review under state law, many have apparently been redivided. As a consequence Park County is sueing to enforce its subdivision regulations."?

35. On page 3-77 we find, "The Church has indicated that development of the Glastonbury properties has proceeded more rapidly than on other 20+ acre divisions in Park County in part because there are better provisions for roads and utilities." None of the vendors of the other 20 acre parcels are conducting training sessions in how to evade the subdivision law (at least not yet) nor are they able to tell their prospective clients that God commands them to buy. The Department has seen the internal video tape that demonstrates these points. Will the Department redraft this paragraph to read; "The Church speculation that Glastonbury properties have been developed more rapidly than comparable divisions in Park County because of the provision of better roads and utilities appears self-serving. The Department is not aware of any other developers conducting training sessions on the evasion of the subdivision law or able to enlist a celestial sales force."?

36. On page 3-69 the prospective development of a medical facility north of Corwin Springs is discussed. The Department is proceeding as if this were an independent action. Because it is sponsored and subsidized by the applicant it must be considered a connected action and its water and sewer systems considered public facilities reviewable under this document. Will the Department conduct this review as part of this document, and if not, why not?

37. On page 3-92 we find a discussion of EPCRA compliance. Why hasn't the Department provided us with a list of the materials utilized by the applicant sufficient to determine whether these conditions apply or not? Will the Department make that determination?

38. On page 3-97 and 3-98 appears a discussion of the population, presumably illustrated with Map 3-1 which appears on page 3-99. This discussion is so confusing as to defy analysis. Gardiner is alledged to have grown in population from 209 in 1980 to 511 in 1990. This is erroneous. The 511 number doesn't match the population of Gardiner cited eleswhere in the DSEIS which alledgedly came from the same source. The map is unreadable and no key is provided. We have to go to page 4-64 to find information about the current and proposed population on RTR-S that should be provided here. Absolutely no clear information is provided about the applicant's population elsewhere off applicant controlled property in the county, much less their total membership. I believe the Department has been provided with the internal documents that demonstrate that the applicant means to have this entire membership in Park County or very nearby at some point in the not too distant future. Impact analysis based on incomplete data about the number of impacters is meaningless. Will the Department correct the errors, clarify the presentation, provide the total of the applicant's population currently in Park County, their present location, and the applicant's total membership, world wide?

CHAPTER 4

39. On page 4-1 we find, "The Church has indicated it does not have any ***formal*** (emphasis added) plans for the future other than what is presented in this SEIS. ....the analysis of potential cumulative impacts has been addressed based on the Church's potential for maximum development." In my comment #38 I discuss why this isn't even close. The maximum development scenario must be based on the total worldwide membership of the applicant organization because their internal documents have consistantly indicated that is their objective. In general all of the impact analysis is faulty because it is based on the wrong population figures. Will the Department reanalyize these impacts based on the probable actual figures?

40. On page 4-3 we find "East Gate" and "Spring Creek Headquarters" considered together. That is not necessarily a bad idea as the "Spring Creek Site" is an obvious place where Alternative 4) (as described in comment #6) should be applied. I suggest that either the "Ranch Headquarters Area" or "East Gate", particularly the latter stand out as alternative locations for this development. Should the "East Gate" area be chosen the impact section might read:
"Alternative 4: Approval with Mitigation Plan and Recommendations at an Alternate Location. Consolidation of two of the largest population centers proposed for RTR-S would allow the replacement of the large drainfield currently operating at East Gate with a full treatment sewage plant that would reduce anticipated long term impacts from this source. Traffic impacts, especially the heavy truck traffic associated with the delivery of supplies and the materials involved with the printing plant, would be reduced on the inadequate county road. (see page 4-69 to 4-71) Also much reduced would be the traffic impacts caused by the need to bypass the low load bridge. A new viewshed impact at the base of Devil's Slide would be avoided though the visual impact at Corwin Springs generally would be increased. Wildlife impacts caused by the occupation of this critical choke point in the valley will be avoided. Otherwise the general impacts are anticipated to remain the same. Will the Department, in redrafting this DSEIS, propose such an alternative, and if not, why not?

41. Page 4-4 opens the discussion of the Mol Heron Shelter Site. As above, this is another proposal that cries out for the use of "Alternative 4." I recognize that dismantling the existing shelter would carry with it a heavy cost in impact. Consent decree notwithstanding, that shelter was constructed illegally. Permitting it to remain is to reward the applicant for making a decision that their behavior suggests they knew was illegal. Will the Department rewrite this discussion along these lines:
"Alternative 4: Approval with Mitigation Plan and Recommendations at an Alternate Location. Reinstalling petroleum product tanks at the "Confrence Site" is denied. The existing shelter and LP tanks are to be decommissioned in place and the site reclaimed. Shelter spaces for the requisite number of persons will be approved as an integral part of detailed structural planning for the "Church Headquarters" facilities. Fuel storage requirements shall also be integrated with this design work. Impacts associated with the transportation and storage of petroleum products are much reduced with this alternative. The facility is more available to the population it is intended to serve. Impacts associated with water and wastewater systems are also reduced because of its integration with surface facilities. Closing the existing facility in place will allow for thorough reclaimation of the site to reduce sediment impact on Mol Heron Creek."?

42. The discussion of general cumulative effects (4.2.1.6) that begins on page 4-5 is most notable for one critical omission, Big Horn Sheep. Will the Department require the DSEIS to be rewritten to include a discussion of the impacts on the Cinnabar Mountain sheep herd?

43. On page 4-13, in the discussion of the specific impacts associated with the "Spring Creek Headquarters" development under Alternative 2 we find; "Riparian vegetation and the presence of a large natural earth berm between the proposed site and the river will help to buffer sedimentation." Unfortunately that berm has a natural drainage to the river at its south end and another along its northern border opposite the La Duke Picnic Area. This berm can not be relied upon to prevent storm drainage or other discharges to the river. Will the Department review this section and recast its impact predictions accordingly?"

44. On page 4-16 the discussion of the "Golden Age Village" begins. I have a general objection to approving expansion plans for a developer whose existing operation is clearly in violation of the subdivision law.

45. On page 4-18 we find repeated the assertion that the applicant has been responsible for the restoration of year-round instream flows. With the possible exception of Reese Creek (see comments #23 and #26) this is in error. Will the Department correct this overstatement?

46. On page 4-27 under (4.2.3.4) we find; "The development also includes three test wells, one of which has already been drilled." What happened to the reports on the other 3 or 4 wells drilled, alledgedly for this purpose? The Department needs to take a look at what is going on here and make sure that the applicant hasn't already drilled all the wells, or perhaps slipped in another, unannounced, geothermal well or two.

47. On page 4-42 we find; "However, denial of these permit requests may have the effect of decentralizing Church activities." I recognize that the applicant has the capacity to spread out over still more area but I submit to the Department that what this DSEIS represents is anything but "centralized development." The applicant proposes to build, in fact has already largely built, four fair size towns, three of them within three miles of each other. Will the Department rewrite this sentence to read, "However, denial of these permit requests may have the effect of further decentralizing Church activities."?

48. On page 4-49 we find, "Due to the preliminary nature of the site plans, it is difficult to assess the "as built" visual quality impacts." If the site plans are that primitive then the application is too incomplete to be considered and should be withdrawn untill the applicant is prepared to present the appropriate information. Computer generated visuals are routinely used to answer this kind of question. Will the Department require the applicant to provide sufficiently complete plans and computer visuals to make such an assessment?

49. On page 4-62 we find, "Other than the petroleum leaks at the Mol Heron Shelter Site, there have been no substantiated misuses or illegal disposal of hazardous wastes by the Church since the DEIS and FEIS were written." I believe this statement is in error as two other instances were reported in the press. One involved a petroleum product spill at the Livingston Industrial Park and the other involved propane at Glastonbury. I believe the Department has documentation on these spills. Will the Department correct this mis-statement?

50. On page 4-67 we find, "The population of the town of Gardiner more than doubled between 1980 and 1990." This statement presumably relies on the population figures from page 3-98. As indicated in comment #38 I believe those numbers to be seriously in error. It is probable that the population of the whole upper valley, including Gardiner and RTR-S doubled during that time frame but this increase was almost entirely due to the applicant's people moving into the area. Will the Department rewrite this section to reflect the actual state of affairs?

I am left with some inescapable conclusions. The Department must withdraw this draft untill a new one can be presented that includes reasonable alternatives for the location of the shelter complex and the Spring Creek developments. At least one of these alternatives for each of these sites must rely on relocation. Clear analysis of the relative impacts of the applicant's currently proposed actions and the relocation alternatives must be provided. I expect that if this is done honestly, the relocation alternatives will be clearly superior. We are also left with the bitter taste of the applicant's disregard for law, process, and stewardship. The mitigation plan adopted must include an enforcement oriented inspection plan, paid for by the applicant but administered by the Department. The final question then is will the Department withdraw this draft, prepare one including relocation alternatives and present an enforcable mitigation plan?

Richard C. Parks, Chairman

(Last page)

"I Cast Out the Dweller-on-the-Threshold!"
by Jesus Christ

In the name I AM THAT I AM Elohim
Saint Germain, Portia, Guru Ma, Lanello
Padma Sambhava, Kuan Yin and the Five Dhyani Buddhas
In the name I AM THAT I AM Sanat Kumara
Gautama Buddha, Lord Maitreya, Jesus Christ
Om Vairochana • Akshobhya • Ratnasambhava
Amitabha • Amoghasiddhi • Vajrasattva Om
I CAST OUT THE DWELLER-ON-THE-THRESHOLD of________
give personal prayers

In the name of my beloved Mighty I AM Presence and Holy Christ Self, Archangel Michael and the hosts of the Lord, in the name Jesus Christ, I challenge the personal and planetary dweller-on-the-threshold, and I say:

You have no power over me! *You* may not threaten or mar the face of my God within my soul. *You* may not taunt or tempt me with past or present or future, for I AM hid with Christ in God. I AM his bride. I AM accepted by the Lord.

You have no power to destroy me!

Therefore, be *bound!* by the Lord himself.

Your day is *done!* You may no longer inhabit this temple.

In the name I AM THAT I AM, be *bound!* you tempter of my soul. Be *bound!* you point of pride of the original fall of the fallen ones! You have no power, no reality, no worth. You occupy no time or space of my being.

You have no power in my temple. You may no longer steal the Light of my chakras. You may not steal the Light of my heart flame or my I AM Presence.

Be *bound!* then, O Serpent and his seed and all implants of the sinister force, for *I AM THAT I AM!*

I AM the Son of God this day, and I occupy this temple fully and wholly until the coming of the Lord, until the New Day, until all be fulfilled, and until this generation of the seed of Serpent pass away.

Burn through, O living Word of God!

By the power of Brahma, Vishnu and Shiva, in the name Brahman: I AM THAT I AM and I stand and I cast out the dweller.

Let him be bound by the power of the Lord's host! Let him be consigned to the flame of the sacred fire of Alpha and Omega, that that one may not go out to tempt the innocent and the babes in Christ.

Blaze the power of Elohim!

Elohim of God—Elohim of God—Elohim of God

Descend now in answer to my call. As the mandate of the Lord—as Above, so below—occupy now.

Bind the fallen self! *Bind* the synthetic self! Be *out* then!

Bind the fallen one! For there is no more remnant or residue in my life of any, or any part of that one.

Lo, I AM, in Jesus' name, the victor over Death and Hell! (2x)

Lo, *I AM THAT I AM* in me—in the name of Jesus Christ—is *here and now* the victor over Death and Hell! Lo! it is done.

Jesus Christ, March 13, 1983.
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APPENDIX A

Pearls of Wisdom®
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FREEDOM 1992
"Joy in the Heart"
XIX
For the Victory!
I Wield Archangel Michael's Sword to Cut You Free and Keep You Free
This Is the Ultimate Confrontation: Fight to Win!

Hail, Keepers of the Flame! I AM come for the Victory, for there is nothing else to come for!

[22-second standing ovation. Congregation gives the salutation:]

Hail, Saint Germain! Hail, Saint Germain! Hail, Saint Germain!
Hail, Saint Germain! Hail, Saint Germain! Hail, Saint Germain!
Hail, Saint Germain! Hail, Saint Germain! Hail, Saint Germain!

Now then, now then, hear Saint Germain, if you will, for I tell you, beloved ones, the earth has muddled around in non-victory for too long. Therefore, I AM here and I AM here to stay until each and every one of you this night is standing in a pillar of Victory's fire! And that pillar is golden and purple flame!

[11-second standing ovation]

Therefore, beloved, consider the hour and consider *what is not being done*. Everywhere you turn, you say and you hear those saying, "We must do something about our problems." So they talk about those problems.

Where is the solution?

It is in the heart of every Keeper of the Flame on earth.

Therefore I say, *hear me!* There are many good hearts everywhere on earth who suffer dire catastrophe, whose children are lost

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dense and soft and unable now to respond to the greatest calling you have ever had in any hour or day or year or century or continent.

Yes, beloved ones, this *is* it. This is the ultimate confrontation. And therefore I say to you, keep on keeping on, *wield* this mighty sword and know that I, Saint Germain, stand with you. And I stand for that great victory of your soul! [25-second standing ovation]

My message to you, then, is: Fight the good fight[3] and win. Fight to win, not to lose. Fight to *win,* beloved ones! And know what it means to go after the beast of self and other selves until it is ultimately and totally slain.

Life is more than meat. It is more than the flesh. It is more than business. It is more than money. Life in this day and time is life for the saving of a dying planet and a dying people, whose light is fast going out.

Blessed ones, I love you or I would not even address you. I love you because you are mine and because we are yours. [This is] something that we share that is so close. Now Portia and I embrace each one of you personally with our whole heart and being.

Pray that you might see and know your ancient and future fiery destiny. Pray that you shall understand that you are *unique* and that time, time is running out for your victory.

Set Your Mark on the Inner Retreat

I ask you to set your mark and set your goal on this Inner Retreat. Mark the sign of the cross in the earth and say to that place:

I shall return next year and I shall see that we double and triple the numbers of those who come.

For I will go out and find them!

I will decree for them!

I will cut them free!

I will show the Messenger's videos!

I will teach the people!

I will give everything I have and everything I know and everything I have learned from the Ascended Masters to another and to another, for I have no right to selfishly keep this knowledge to myself.

My life belongs to Saint Germain, to Portia, to Almighty God.

My life belongs to the people of earth.

Here I have made my karma: here I shall have my victory.

I shall not leave another embodiment where I have left a record of my karma, some ditch for some soul to fall into.

I will press my feet into the earth.

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I will move from nation to nation.

I will go where I am pulled by God.

I will speak the Word and speak the Truth into the very teeth of error!

I will now give all of my life to this cause.

And giving all of my life to the Spirit of God and being wise in taking care of my four lower bodies and being wise in using the dynamic decrees to deal with difficult situations and evil ones, being wise to know the tremendous power of the Word, I shall take my stand, I shall know when to be silent, when to speak, when to call upon the name of Saint Germain.

I will, I will, I will *pursue* to the ultimate.

I will give my all! And if it is only my victory I can win, then I will plant my V in the earth and others will come after me.

But I will never have to look back and say: "You were a coward. You were lazy. You failed your God and yourself and look at what the consequences were!"

Beloved ones, I speak to you thus because there is no other way to speak. Either have the full, fiery, heroic victory of your soul or do not look at me. For, beloved ones, you can do it! And if you do not, I shall hang my head with shame before the Lords of Karma.

I ask you, beloved, to lock my words in a locket around your heart and do not forget. For if you forget this night, beloved ones, *we will lose.* It is in your hands, and I am as near to you as your call to me.

I AM your Knight Commander, Saint Germain, and your Saint Joseph, ever at the side of the noble, the true, the God-victorious warriors!

[38-second standing ovation. Congregation gives the salutation:]

Hail, Saint Germain! Hail, Saint Germain! Hail, Saint Germain!
Hail, Saint Germain! Hail, Saint Germain! Hail, Saint Germain!
Hail, Saint Germain! Hail, Saint Germain! Hail, Saint Germain!
Hail, Saint Germain! Hail, Saint Germain! Hail, Saint Germain!
Hail, Saint Germain! Hail, Saint Germain! Hail, Saint Germain!
Hail, Saint Germain! Hail, Saint Germain! Hail, Saint Germain!

"The Summit Lighthouse Sheds its Radiance O'er All the World to Manifest as Pearls of Wisdom." This dictation by **Saint Germain** was **delivered** by the Messenger of the Great White Brotherhood Elizabeth Clare Prophet on **Saturday, July 4, 1992,** during the ten-day conference *FREEDOM 1992: "Joy in the Heart"* held at the **Royal Teton Ranch, Park County, Montana.** You will want to have your own videocassette of this fiery dictation by the Knight Commander. The Messenger recommends that you play it often, joining her and Saint Germain in swinging your very own **Archangel Michael sword.** To order your personal sword, send $60.00 plus $4.00 postage to Summit University Press, Box 5000, Livingston, MT 59047-5000. The sword is of a medieval (falchion) design with a wooden-and-brass handle, 13-inch stainless steel blade and leatherette scabbard. The blade is hand-engraved with "Archangel Michael." It is not sharpened and should not be sharpened. It is a ceremonial sword for altar use only. Once you receive it, Archangel Michael will place the focus of his sword over yours. The next shipment will be available after December 1. Order yours now to be sure you have it for Christmas and the new year. The video- and audiocassettes of Saint Germain's dictation will be available after November 15. [**N.B.** Throughout this *Pearl,* bracketed material denotes words unspoken yet implicit in the dictation, added by the Messenger under Saint Germain's direction for clarity in the written word.] Throughout these notes *PoW* is the abbreviation for *Pearls of Wisdom.* (1) **Earthquakes.** See pp. 392–94. (2) **Portia stepping forth from the planes of nirvana.** See the "Goddess of Justice's Discourse," Apr. 9, 1939, in *The Voice of the I AM,* May 1939 (Los Angeles: Saint Germain Press), pp. 32–41. See also 1989 *PoW,* p. 724 n. 5. (3) **"Fight the good fight."** I Tim. 6:12; II Tim. 4:7.

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The Living Flame of Cosmic Freedom

by Oromasis, Prince of the Fire Element

In the name of the beloved mighty victorious Presence of God, I AM in me, my very own beloved Holy Christ Self, beloved Prince Oromasis and Diana, Aries and Thor, Neptune and Luara, Virgo and Pelleur, beloved Omri-Tas, beloved Saint Germain and Portia, Mighty Arcturus and Victoria, beloved Archangel Zadkiel and Holy Amethyst, beloved Great Divine Director, beloved Mother Mary, Jesus and Magda, Lord Maitreya, beloved Gautama Buddha, Kuan Yin, Sanat Kumara, the Seven Holy Kumaras, and the Archangels and Elohim of God, beloved Lanello, the entire Spirit of the Great White Brotherhood and the World Mother, elemental life—fire, air, water and earth! I decree:

I AM the immortal Flame of Cosmic Freedom!
I demand that all of my energies in outer concentration submit
  to the great God Flame within my heart!
I demand that all outer conditions come within effective God-
  control!
I demand that all that is not of the Light be transmuted and
  changed and that I be the fullness of all that which I already AM!
For I AM the full perfection of God!
I AM the living Flame of Cosmic Freedom!
I AM the buoyant, dancing joy of God that passes through my
  entire four lower bodies and descends from the heart of my
  Presence to give me my Freedom now!
I AM the raising power of the Spirit of light and fire which lifts me
  to the victory of my ascension and is the full-gathered momen-
  tum of victory of the saints and ascended beings of all ages to
  ascend back to the very heart of God and the immortal con-
  sciousness thereof.
So help me, God!

And in full Faith I consciously accept this manifest, manifest, manifest! (3x) right here and now with full Power, eternally sustained, all-powerfully active, ever expanding, and world enfolding until all are wholly ascended in the Light and free!

Beloved I AM! Beloved I AM! Beloved I AM!

Taken from a dictation by Oromasis, April 26, 1964, Washington, D.C.

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Park
County
Environmental
Coalition

P.O. Box 164 • Livingston, MT 59047
Telephone: (406) 222-0723

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JAN 19 1993
MDHES
Environmental Sciences Div.

January 15, 1993

Montana Dept. of Health & Environmental Sciences
P.O. Box 200901
Cogswell Building
Helena, MT 59620-0901

To whom it may concern:

The Park County Environmental Coalition is extremely displeased with the analyses contained in the Supplemental Environmental Impact Statement on Church Universal and Triumphant's proposed developments just north of Yellowstone National Park. CUT's past actions have already severely degraded their surrounding environment, with the enormous impact to wildlife and water quality caused by the construction of the Mol Heron Bombshelter (and subsequent fuel spill), uncontrolled and illegal subdivisions, illegal dumping of sewage, and increased traffic and congestion. With this history, we feel it imperative that the SEIS evaluate CUT's proposals in great detail and consider all alternatives, including "no-action" ones.

The largest flaw of the draft SEIS is that it does not evaluate alternatives to CUT's proposals. Instead of just documenting the projected impacts to wildlife and fisheries, it is the State's duty to look at ways to minimize those impacts, including best-available technologies for mitigation, and alternative locations of developments. Whether their locations are "divinely inspired" or not, the Church does not have the right to seriously degrade public waters or impact Yellowstone's wildlife or geothermal features. Those are public resources, and how to best protect them is an integral part of any environmental impact statement.

For instance, potential impacts from their proposed geothermal well are not adequately addressed in the SEIS. Besides the fact that CUT's pumping of the well violated an existing agreement, the Park Service has done an study that states that pumping from a geothermal well could effectively destroy Yellowstone's geysers (and a growing part of Park County's economy - tourism!) Where is the in-depth analysis and list of alternatives for this proposal?

Additionally, the State's suggested mitigation for sedimentation problems is "hay bales", when best-available technology would suggest more effective sediment ponds or filters. The current sewage system design is inadequate to accomodate the 756-person bomb shelter, and their needs to be a temporary (once a year) system to safely deal with the sewage generated by the 6,000 people attending their annual conference at the Mol Heron shelter. The State has the authority under state sanitation laws to protect surface and ground waters from individual developments, so why take a chance with our world-renowned blue-ribbon fisheries? The scale, and cumulative impacts, of these proposals dictate that the State insist on the best protection available. And while the "Multiple Species Conservation Plan" seems like a good idea, why would the state be willing to wait for more development to be proposed to implement this idea? This should be mandated immediately, as a mitigation for existing impacts, and certainly before any more development would be allowed to occur.

It is our feeling that the State needs to go back to the drawing board and get alot more detailed information, look at a wide range of action and no-action alternatives, and insist on the best mitigations available before giving CUT permission to do anything else in Park County.

Sincerely,

KWade for

The Board of Directors
Park County Environmental Coalition

Kelly Wade
Cary Lund
Rob Forstenzer

Jeanne-Marie Souvigney
Bill Leitch
Dan Porter

Park County
PLANNING OFFICE 414 East Callender — Livingston, MT 59047 — 1-(406) 222-6120

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JAN 14 1993

MDHES
Environmental Sciences Div.

January 13, 1993

Mr. Edward Francis
Vice President
Church Universal and Triumphant
P.O. Box 5000
Corwin Springs, MT 59030

Dear Mr. Francis:

The 1992 Draft Environmental Impact Statement outlines the churches plans to construct a new headquarters at the base of Devil's Slide. The development conforms to the definition of a planned unit development according to the Montana Subdivision and Platting Act. In addition, that law gives Park County jurisdiction over any development for recreational vehicle and mobile home spaces.

76-3-103 Section 8 MCA defines a planned unit development as a "land development project consisting of residential clusters, industrial parks, shopping centers, office building parks, or any combination thereof which comprises a planned mixture of land uses built in a prearranged relationship to each other and having open space and community facilities. The Spring Creek Headquarters development meets the criteria of this definition.

73-3-103 Section 15 MCA defines a subdivision as "a division of land or land so divided which creates one or more parcels containing less than 20 acres, exclusive of public roadways, in order that the title to or possession of the parcels may be sold, rented, leased, or otherwise conveyed and shall include any resubdivision and **shall further include any condominium or area, regardless of its size, which provides or will provide multiple space for recreational camping vehicles or mobile homes.** Any time that you develop multiple mobile home or recreational vehicle sites, they are subject to review by the county. This includes the Spring Creek Ranch, and Mol Heron sites. This definition also pertains to multiple mobiles on twenty acre tracts.

Please submit any plans the church has for development of this type to the Park County Planning Office.

If you have any questions, please contact me at 222-1620.

Sincerely,

Ellen Woodbury

Ellen Woodbury
Planning Director

cc: County Commissioners
County Attorney

Sierra Club
Montana Chapter
78 Konley Drive
Kalispell, MT 59901
(406) 752-8925

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JAN 20 1993
MDHES
Environmental Sciences Div.

19 January 1992

Montana Department of Health and Environmental Sciences
P.O. Box 200901
Helena, MT 59620-0901

RE: CUT DEIS

Sirs:

We understand that the Montana Department of Health and Environmental Sciences has issued a draft supplemental environmental impact statement concerning proposed developments by the Church Universal and Triumphant (CUT) on their property in the Yellowstone River valley, just north of Yellowstone National Park.

These proposed developments have serious potential for adverse impacts on the entire area, including the water quality of Mol Heron Creek and the Yellowstone River; the unique and internationally famous thermal features of Yellowstone National Park; and the wildlife that are an essential and invaluable component of Yellowstone National Park, but spend a part of their lives in this area, and are dependent on the habitat provided by this area for their continued existence and welfare.

The likelihood of serious adverse impacts from these developments is greatly increased by the dismal environmental record of CUT. It is well known that actions of this group have resulted in massive fuel spills, dumping of sewage, and construction and pumping of a geothermal at variance with an agreement with the State of Montana, and construction of underground bomb shelters and associated fuel tanks without a legal construction permit.

In developing the Final EIS, we ask that your agency will correct the following deficiencies in the DSEIS:

(1) The serious adverse impacts of the current bomb shelter complex and its inadequate sewage system must be addressed and an alternative that corrects this situation must be presented.

> The location of the bomb shelter complex immediately adjacent to Mol Heron Creek constitutes a serious threat to the water quality of the creek and the Yellowstone River. The Yellowstone is a nationally famous blue-ribbon trout stream, and Mol Heron Creek in an indispensable spawning area for Yellowstone River trout. The Montana Water Quality Act's nondegradation standard clearly provides the State with the authority and power to correct this situation.

(2) The DSEIS is deficient in failing to present a complete analysis of the potential impacts of developing a geothermal well on the property.

CUT has made clear its intent to develop geothermal resources on its property. This presents a clear threat to the thermal features that are the unique characteristic of Yellowstone National Park. Granted that there may be incomplete knowledge concerning the probably consequences on Yellowstone's thermal features, the fact that these effects cannot be predicted with certainty clearly establishes that a serious risk exists. This risk is documented by the analysis made by the National Park Service. The DSEIS completely fails to take this analysis into account. The public has the right to have a complete assessment of this threat, and it is the responsibility of the Final EIS to provide this information.

(3) The DSEIS is deficient in not providing a complete and thorough analysis of the adverse impacts on wildlife.

It is well known that substantial numbers of elk, bison, grizzly bears, big horn sheep, and other large mammals migrate out of Yellowstone National Park and utilize the areas immediately north of the Park as essential habitat for a significant part of the year. Development of this area as proposed will deprive these animals of this necessary habitat, and have an unavoidable adverse impact on these wildlife populations and their welfare. The potential effects on grizzly bears is especially critical, since it is certain that developing this area will result in increased number of human–bear contacts, with the completely predictable result of increased mortality of a listed threatened species.

It is understood that the State may have limited authority to mandate an alternative that would avoid these adverse impacts. However, that fact does not excuse the State from its obligation to provide complete information to the public concerning these impacts. Therefore, the Final EIS must include a complete analysis of these adverse impacts on wildlife, and must present a full range of possible alternatives that would mitigate these impacts.

Please place us on the list to receive a copy of the Final EIS and all accompanying appendices, maps, and documents.

Sincerely,

James R. Conner

JAMES R. CONNER
Chair

Upper Yellowstone Defense Fund

Box 405 — Gardiner, Montana 59030

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JAN 19 1993

MDHES
Environmental Sciences Div.

January 16, 1993

The following are submitted by the Upper Yellowstone Defense Fund as comments on the Draft Supplement Environmental Impact Statement for the Church Universal and Triumphant

My name is Julia Page. I live in Gardiner and own and operate a whitewater rafting business here in the summer. I am president of the Upper Yellowstone Defense Fund. We are a citizens group from Park County that organized in 1987 to protect the natural resources and existing, traditional land use of the upper Yellowstone River valley against the heedless and environmentally damaging developments of the Church Universal and Triumphant. We have participated actively in the public part of the review process that has led to the approval of some of CUT's projects, but have been frustrated by the State's inability to deal with this aggressive, arrogant developer.

Many of us who spoke at the public hearing Jan. 5 and 6, and many of those who didn't, feel frustration and anger towards this whole review process and wonder why we even bother to participate in an exercise that appears to be meaningless. The State has allowed this developer to build projects before they have the required permits, to break laws and regulations with impunity and to lie and get away with it. We have been told by the DHES that they are busy and don't have time to watch CUT constantly, so that we have to be their eyes and ears. Yet when we send the Department information on CUT activities or impacts, the information is often ignored or forgotten.

The messy history of CUT's developments and the State's ineffective attempts to insure compliance with the Montana Environmental Policy Act, the Water Quality Act, the Subdivision Law and other laws and regulations, has been covered by others, but I want to highlight one very bad decision made by the State, that was based solely on the word of this developer with no supporting evidence, that renders this EIS meaningless. Specifically, in the Consent Decree signed in the summer of 1991, the State declared that the water and waste water systems for the 750 person bomb shelter were not public systems. This was decided despite the fact that the definition of a public system is one that is designed to serve or serves 25 or more people for 60 or more days a year and that is exactly what the Mol Heron bomb shelter is designed to do.

The shelter consists of six 126-person living units and one very large central storage area. The fuel system installed by CUT has enough fuel to run the generators for two and a half years (1.5 gal/hr x 24 hours/day x 60 days x 6 shelters, plus one storage area, so x 7 = 15,960 gallons for 2 months). That works out to 15,960 gallons necessary for 2 months worth of living and yet CUT wants to put in 240,000 gallons of fuel. The other stored fuel, the quantity of stored food, the nature of the medical facility, the elaborate preparations for information storage (reference: Sean Prophet's fundraising letter), the long list of recommended clothing and supplies for life underground and other factors all indicate that CUT intends to be able to use that shelter for much more than 60 days. Incredibly, the department still has declared that this system, designed to serve 750 persons for an extended period, only needs to be reviewed by the County as a private, single family-type water and waste water system. We have said all along that this decision is disgraceful and contrary to the law. It was made so that the Department could justify not reviewing the location of the shelter.

Another instance where the State's management of this developer has made a joke of the system is the issuance or non-issuance of work camp permits. On page 3-74 of the DSEIS it states, "Work camp licenses are issued by the DHES's Food and Consumer Safety Bureau. The purpose of the licensing requirement is to insure sanitation and protect public health." Well, that's nice, but it doesn't mean a thing unless the DHES requires the permit before the work camp is occupied. On page 1-5 of the DSEIS it says that CUT has two work camp applications that were put on hold May 30, 1990. When were those work camp licenses applied for? One license is for the Ranch Office Complex that houses 24 employees (or 36, figures in this document conflict) and the other is for the Ranch Headquarters which houses 251 people and is also frequently the site of services and conferences drawing hundreds more people. The unlicensed work camp at Ranch Headquarters was the source of most of the raw sewage that CUT was caught dumping out on the ground in December of 1990. If the Department won't enforce these rules, especially when harm is being done, then what's the point in having them?

Back in 1990, an important part of the State's decision to reopen the EIS process was that significant projects at Glastonbury requiring state action had not been previously reviewed. They weren't reviewed because CUT and CUT members didn't apply for the required permits to build. Some land sales required review under the Subdivision Law and many of the shelter water and septic systems required review and approval as public systems. This idea was carried forward when the State originally filed its lawsuit against CUT after the fuel spill in Mol Heron. Unfortunately for the public, the information supporting these allegations that was gathered by State lawyers, was suppressed when the State settled its lawsuit with the Consent Decree.

Currently, the County has a lawsuit against CUT concerning violations of the subdivision law in Glastonbury, and yet we are now supposedly evaluating the impacts associated with the expansion of yet another CUT subdivision, the one at Golden Age village. When will this stop. When will CUT be held accountable for one violation before they are allowed to go forward with another development of the same type?

It is meaningless to be examining only the impacts of reinstalling the tanks at the shelter site when first the Department should examine the impacts of locating the shelter in the upper Mol Heron area. Just because CUT, in its arrogance, went ahead and built this massive atrocity doesn't mean that it should automatically be allowed to exist. This shelter project was the primary reason the State felt it needed to reopen the environmental review. Since that time, CUT has added more projects to the list of things it wants reviewed and approved, but the primary reason at the time of the decision, was the Mol Heron shelter. This was made abundantly clear in letters from the DHES to CUT dated August 15, 1990, Feb. 8, 1991, and April 5, 1991. We feel the Department has an obligation to evaluate the location of this project as if it were a proposal.

At the scoping meeting in Gardiner on April 10, 1990, people overwhelmingly called for a review of the impacts of building a shelter in Mol Heron, and yet the State has now taken the position that they will not consider alternate locations for the shelter because the applicant claims religious inspiration dictated where it should go. The State has documents refuting the church's claims on how and when that location was chosen, but they are ignoring those. Furthermore, the RTR-S (the "divinely inspired" area) includes approximately 12,000 acres, and given that much area, there certainly are other locations on the ranch that would create fewer negative impacts.

The most harmful impacts of the MHS are those associated with wildlife habitat loss, pollution and sedimentation in the clean water Mol Heron Creek, and traffic and road problems brought about by greatly increased traffic on the Mol Heron Road. All of these could be significantly mitigated by selection of an alternate place for the staff bomb shelter. The fact that the shelter is already built must not preclude a thorough evaluation of the choice to put it in Mol Heron. The claim that the choice was religiously inspired does not exempt it from the laws of Montana. In an April 5, 1991, letter from the State to CUT on this very subject the Department said, "The Church, like anyone, cannot avoid environmental review under the Montana Environmental Policy Act (MEPA), simply by failing to apply for necessary permits." The impacts of the shelter in Mol Heron must be examined, and meaningful and enforceable alternatives and mitigations must be developed for this project.

A similar tactic is being used for not examining the impacts associated with CUT's use of its geothermal well. In 1986, when CUT first drilled and test pumped its geothermal well it did so illegally. Wells of that size need prior approval which CUT never sought or recieved. Then, in the signed Mitigation Agreement in the FEIS, CUT agreed not to use its well until it had the proper permits. At the end of June, this year, CUT pumped its well briefly contrary to the Mitigation Agreement. The Department forced them to stop, but Ed Francis said at the time that he had gotten what he wanted, he had established "beneficial use" which entitled him to a water right for the well. The DNRC granted CUT its water right despite the illegalities.

The fact is though, that CUT has used its well and plans to continue using its well; therefore the impacts associated with geothermal pumping must be examined. The DSEIS is incomplete without such analysis. One of the important issues is the precedent setting nature of allowing any use of geothermal wells on the border of Yellowstone. Also, the potential exists for a proliferation of small wells of this nature that in aggregate could be harmful to Yellowstone Park's goethermal system. These arguments have consistently been presented by both the National Park Service and Irving Friedman, a senior USGS scientist, but their views have not been included here and should be.

We are particularly concerned with the impacts to wildlife, geothermal resources and aesthetics regarding the Spring Creek proposal. We find it totally unfortunate that CUT wants to site yet another town along the banks of the Yellowstone so close to their other developments. Again here, we feel that an alternate location could avoid many of the impacts associated with the proposal and that an alternative based on a different location should be analyzed. The area under Devil's Slide is important winter (and summer) range and is used constantly by mule deer, bighorn sheep and pronghorn, and less often by migrating elk. The large numbers of people and the huge increases in traffic will greatly disturb these animals.

The Spring Creek site is directly under Devil's Slide, one of the geologic wonders and premier views of the upper valley, and the buildings will be highly visible to traffic coming from the south. At night these will stand out like a sore thumb. The sewage lagoons will probably be visible from the highway, also; certainly the fencing around them will be. The suggestion in the DSEIS that landscaping will be able to soften the visual intrusion of this new development isn't valid. First of all, it will take many years and a lot of luck and water for a tree, even a fast growing tree, to grow large enough to hide anything out there. Secondly, the approach from the south is higher than the Spring Creek site, so the road looks slightly down on the development site, and trees won't hide much.

Another aspect of the Spring Creek development that hasn't been looked at is the impact associated with the proposed relocation of the printing plant to this area. What kind of traffic will be generated by this commercial enterprise? How many trucks will be needed per day to haul in supplies and to haul out the finished product? Will the trucks need to travel through Gardiner and the Park to get there? What kinds of chemicals will be used? What are the plans for the disposal of toxic waste generated here? Will there be night shifts? . . . There are many questions that need to be answered about this part of the proposal and the DSEIS is incomplete without this information.

Besides these major flaws in the document, (1) the lack of discussion of the Mol Heron shelter impacts, alternatives and mitigations, (2) the meaninglessness of the whole process given the state's bizarre past decisions and lack of enforcement and (3) the lack of discussion of the impacts associated with the use of the geothermal well, and (4) the lack of meaningful alternatives, especially regarding project location - there are numerous other specific shortcomings and inaccuracies in the document.

Once again we see too much reliance in this DSEIS on unverified information from the applicant. The department knows by now that CUT is willing to lie and mislead in order to push its own agenda, but inexplicably it hasn't bothered to verify the information being provided. The following are comments on discrepancies that we have found.

The maps provided by the applicant for their various projects are inaccurate. The map of the Ranch Headquarters Area on page 1-30, left out about 9 trailer houses, the guard house on the entry road, the new road leading from the Trestle Ranch to the new residence and on south across a new bridge over Mol Heron Creek to the county road going up Mol Heron Creek. The map of the Corwin Springs area on page 1-28, left out 7 trailer houses and one double-wide at Camp Mustang. Those have been there for years. We know this from aerial photos of the areas. The department could have found this out by inspecting the sites or referring to photos we have sent them over the years. The map of the whole RTR-S on page 1-26 omits the new road linking the shelter site with the road out Beattie Gulch. This road was put in during the abandoned coal mine reclamation work, but was never closed out and reclaimed. Some of it crosses Forest Service land. It gives CUT an escape route from the trap of the shelter location.

The map of the Mol Heron Conference Shelter Area on page 1-31 is curious. There is a lot of detail on the "temporary" structures at the conference site. These are no longer temporary structures, the tent pads and roads were graded and gravelled last fall. None of this was proposed or reviewed despite the fact that the public was led to believe that environmentally significant construction would not go forward during the writing of the DSEIS. These structures prove that is not the case. The Department has dodged its responsibility to halt these projects and evaluate them as part of the overall impacts of the CUT developments.

We have attempted repeatedly to get an answer from the Department on why this has been allowed, on what constitutes a "major development" in its eyes, on whether or not CUT has abided by the restrictions in the Consent Decree about adequate prior notification for building projects. We have had no satisfactory answers. I am including my letters of May 27 and August 24, 1992, in reference to these issues.

The conference/shelter area map does not show the location of the existing septic system associated with the "upper campground". Where is that located? Also, are the closely spaced parallel lines the proposed septic drainfields for each 126-person shelter pod? The "parking area" in the middle of the map was constructed this spring and is almost entirely new land disturbance. It most likely was another contributor to the sediment problems in Mol Heron Creek, but it was not evaluated prior to construction. The map should show three tiers, not two for the parking area. I know the department is aware of this because I talked with Tom Ellerhoff specifically about this new disturbance. Also, the trailer house for the 24 hour-a-day guard at the "locked gate"isn't shown.

The maps of Glastonbury (pages 1-34 and 35) are a total disappointment. We were assured we would have a complete accounting of where the homes and shelters were located. Instead all we get are these maps of the platted 20+ acres lots. They are not the major problem. The problem is the defacto subdivision created by CUT's deliberate evasion of the Subdivision Law. This was promoted by CUT's leadership including Ed Francis and Elizabeth Prophet, who encouraged individual members to "go together" on a piece to make it affordable. What the maps should show us is how many residences there are on each lot, and where each of the major bomb shelters are that are designed to serve 25 or more people and are public systems. This information should be included in the DSEIS, and the impacts of those public systems should be evaluated here.

The description of "Church Activities" on pages 1-6 and 7 should be amended to read: (1) holding and selling religious services, lectures, seminars and conferences, (2) publishing and selling religious writings, art and video and audio productions, (3) servicing and selling to and taking a thithe from an international membership and affiliate Churches, (4) conducting and selling a 12-week religious course of study . CUT recently had its tax exempt status as a church revoked by the IRS. The commercial and industrial nature of most of its activities is apparent despite Ed Francis's claims to the contrary. CUT's contention that it is seeking self sufficiency is misleading. The success of its operation depends on sales of various products to people living off the ranch.

As just one example, I am enclosing a "Sale Update" from the Royal Teton Ranch Food Storage Program from 1989, at the height of CUT's survival preparedness crisis. Guru Ma, through her "dictations", created the atmosphere of crisis, of impending doom, for which her true believers had to prepare. She then sold her people the things they would need to be prepared. First she sold them the property at Glastonbury where they could build their shelters. She sold them shelter plans, approved by her through Royal Teton Engineering. She sold them clothing for going underground. She sold them tapes to listen to while underground. She sold them food to eat while underground. She sold water filters, pressure cookers, cookbooks, grain dehullers. She sold her people seeds to plant when they came up again. The real inspiration for the Mol Heron shelter and the whole preparedness scheme would appear to be financial gain.

Appendix A of the DSEIS is a letter from Ed Francis to the Department outlining the various corporate entities associated with the church. In early December this year, the DHES, Pat Williams, the UYDF and a local newspaper reporter were all sent anonymously a chart of information elaborating on Francis's letter. This information strongly suggests that CUT's operations are an elaborate money making scheme hidden behind the facade and the tax exempt status of a religious organization. It shouldn't matter what kind of organization CUT is when it comes to reviewing and approving (or not) its various development proposals. All organizations should be treated equally under the law. The thing we find so difficult in the present situation is that CUT uses its status as a "church" to get special treatment and the Department goes along with that. The strong probability that some of CUT's activities are inappropriately tax-exempt is even more maddening. Page 3-81 of the DSEIS says that as of 1991, the Ranch Kitchen, Cinnabar General Store, Big Spur General Store, and adjacent campgrounds were all tax paying "normal business operations". What about the years before 1991?

The discussion of the maintenance needs at the shelter complex on page 1-17 does not mention the fact that there are people up at the shelter every day. In the winter when the traffic volume is much more obvious because of the condition of the snow on the road, it is apparent that there is more traffic going up Mol Heron than up Cinnabar. There are photographs to support this contention. The impacts of year-round use at the shelter site need to be evaluated.

In the discussion of the Scope of Cumulative Impacts on page 1-21 and following, the DSEIS states that "At each new stage of development, applications for state permits could require environmental review. At each stage of development, the possibility exists for baseline environmental conditions to be altered." [emphasis added] How would the State know if baseline conditions were altered. The State has not established baseline conditions in the project area despite the fact that we have repeatedly asked for same. That work needs to be done right away and the results included in the DSEIS. The lack of data for Mol Heron Creek is particularly glaring. Independent, meaningful traffic surveys need to be conducted. Surveys of wildlife distribution and use on CUT property need to be conducted.

Baseline studies should have been completed during the writing of the first EIS. Some of the original conditions have already been drastically altered. A good case in point is the condition of the meadows at the conference/shelter site. CUT claims (page 3-61) that the wet conditions that they altered were "due to the deterioration of man-made flood irritgation channels and that no natural stream beds were altered." The State goes along with this citing a Montana Water Resources Survey. However, looking at the aerial photos of the conference site in 1987, it would appear that the southeast side of the creek was mostly undisturbed willows and other bushes in the riparian area. The irrigation washout that CUT refers to (and absurdly enough said they were going to fix by installing the bomb shelter over it) was on the other side of the creek. Did CUT violate wetlands protection statutes when they drained the meadow? What are the impacts on wildlife brought about by the loss of the Taylor meadow. The conference site is mostly graveled over and now has very little vegetation on it, and the shelter site is fenced in.

Under the discussion of Scope of Cumulative Impacts, it is repeatedly mentioned that the growth potential of the church is virtually unlimited. We must point out that if the State is unwilling to work within the intent of the Montana Environmental Policy Act and is unwilling to enforce the Montana laws regarding Public Water Supplies, Work Camps, Underground Storage Tanks, and Subdivisions, then unlimited growth will certainly be the case, as the sad history of CUT in Park County can already attest.

The development guidelines on page 1-24 are only words. We have seen them before, but this developer's actions speak louder than words, and we have already seen that they have not followed their own stated guidelines especially concerning visual impacts, the rural character of the area and wildlife habitat. CUT has developed its property and associated businesses at a rate much faster than any other business in Park County, and has done it in a sloppy (raw sewage dumping, fuel spill), deceitful (concealing the construction of the staff shelter, evasion of subdivision laws) way.

As in the first EIS, the "Benefits" listed are not all benefits, some are necessary mitigations. For instance in the first EIS, numbers 6, 7 and 8 and in this document, numbers 4, 6, 9 and 10 are mitigations, not benefits.

On page 3-4, the DSEIS states,"According to the Church (Francis 6 June 1992), domestic sheep have not been grazed in the area specified in the Mitigation Plan Agreement, and the Church currently has no plans to do so." And on the next page it says, "Forest Service representatives indicated in mid-June that the Church had not grazed sheep in the described area on Cinnabar Mountain." Why didn't the DSEIS go on to say that at the end of June the church did graze sheep in the described area in violation of the agreement? The department had that information. Hank Rate included it in a July 4, 1992, letter to Steve Pilcher and I included it in a July 4, 1992, letter to Anne Cossitt of GeoResearch. Both of us witnessed this ourselves.

The treatment of the impacts on law enforcement in Park County is inadequate. The methodology used does not reveal the impacts encountered by Park County law enforcement since CUT came into the country in 1981, and in no way reveals the impacts associated with the crisis atmosphere during the winter of 1989-90. The Department should rewrite this section to present a more accurate picture of what has happened. I am including here my letter to Anne Cossitt. There are some suggestions in it on ways to get at these impacts.

The mitigations mentioned in this document are extremely weak - hay bales have not worked to prevent sedimentation in Mol Heron creek. More effective methods must be required, or other alternatives considered. It is not enough to say that the developer will apply water to settle dust at construction sites - the Spring Creek site has been disturbed and unreclaimed since 1987 and the bare ground at the East Gate/Camp Mustang area has been an ongoing source of dust since that time also. One possible solution would be to limit the amount of land the developer could have unreclaimed at any one time. This developer's track record requires that mitigation measures be mandatory and enforceable to be effective.

We believe that the Department must rewrite this DSEIS to include meaningful alternatives, effective and enforceable mitigations and a more complete presentation of the impacts for the proposed actions. Furthermore, the factual errors that are present now need to be cleaned up. We urge the Department to do these things and to make different findings based on the new information. We want a document that will result in an accurate picture and an informed choice, and that will preserve the public's rights to a clean and healthful environment and a state where the rule of law is respected and upheld.

Sincerely,

Julia Page

Julia Page, President
Upper Yellowstone Defense Fund

Upper Yellowstone Defense Fund

Box 405 — Gardiner, Montana 59030

May 27, 1992

Steve Pilcher, Administrator
Environmental Sciences Division
Department of Health & Environmental Sciences
Cogswell Building, Capitol Station
Helena, MT 59620

Dear Steve,

It would appear that once again CUT is going ahead with construction while the EIS is being written and it would appear that they are getting away with it.

A month ago CUT bulldozed a road down to the Yellowstone River from the bench where their Spring Creek development is proposed. A few days after that a drilling rig was down on the river bank drilling a hole below the high water mark. CUT had received a permit from the Park County Soil Conservation Service to hire this drilling done.

Our question is now, as it has been repeatedly in the past, why is CUT being allowed to go forward with construction while their projects are undergoing environmental review. Why is any agency or department or local entity giving them permits while the EIS is being written?

This is making a joke of the process. Environmental harm is taking place, and we are not being given the protection against this harm that we believe is written into the law and which we believe it is your department's responsiblitly to enforce.

Ed Francis was quoted from a recent appearance in Billings saying that CUT is waiting for the outcome of Williams' bill in Congress before beginning construction of the pipeline under the Yellowstone. Isn't he also waiting for the outcome of the EIS before starting construction?

The overall impact of the many CUT developments now being studied in the new EIS is certainly affected by how CUT uses water at these locations. CUT's various permit applications to the DNRC must, in our view, be incorporated into the review. Thus far we have not seen that happening despite assurances that it would be. Is the DHES or the DNRC responsible to see that CUT does no construction on any of the sites undergoing review until the completion of the EIS and final approval of their many applications?

There appears to be ongoing activity at the Mol Heron shelter and convention site. That site is covered under the EIS. Why is CUT working up there now? Heavy trucks hauling gravel have been going by frequently in the past few weeks. Who is going to stop CUT from building until they have their permits and approvals?

Please respond as soon as possible. Those of us who live in the area and witness CUT's continued earth moving are distressed not only by that but also by state government's lack of will when it comes to enforcement.

Sincerely,

Julia Page

Upper Yellowstone Defense Fund
Box 405 — Gardiner, Montana 59030

July 4, 1992

Anne Cossitt
GeoResearch
115 Broadway
Billings, MT 59101

Dear Anne,

The following are several thoughts on information relevant to the new EIS.

The bear study I referred to earlier is in the hands of all of the members of the Yellowstone North Rim Alliance which commissioned the study. The members of the alliance at the time were the Church Universal and Triumphant, Len Sargent, Bruce Malcolm, and Maryanne Mott and Herman Warsh. The study was conducted by Matt Reid and Steve Gehman and it documents bear use in the drainages above the alliance members' land. Mol Heron was one of the drainages studied. Any of the members could supply a copy.

The building of the massive underground shelter in upper Mol Heron Creek involved one of the biggest deceptions the church has used during its stay in Montana. It has caused irreparable harm to Management Situation 1 grizzly bear habitat, a violation of the Endangered Species Act. It has fouled the aquifer underneath the Taylor Meadow with 30,000 gallons of fuel, a violation of Montana's Water Quality Act. When the shelter was occupied on a "test" basis in the spring of 1990, it was a violation of the Park County Sanitary Regulations. The church has lied and bullied and threatened to build this disgraceful monument.

The draining and development of the wetland where the summer conference tents are erected is also a violation of all sensibilities and of law. The conference site has ruined M.S. 1 grizzly bear habitat, and it drained a wetland at the headwaters of an important cutthroat trout spawning stream. Residents who live up Cinnabar Basin have frequently reported Mol Heron Creek running much more muddy or milky than Cinnabar Creek at their confluence. Enclosed are copies of photos of the Mol Heron site during the conference in 1987, and of the confluence of Mol Heron and Cinnabar creeks in the fall of 1991, plus a copy of a page from the Royal Teton Ranch news where it describes draining the wetland to make it usable.

During the building and use of both the bomb shelter and the conference site there has been ongoing damage to the road leading up there. The Park County Commissioners as well as resident up Cinnabar Basin scould speak to that issue. There are public safety and liability issues with the use of that road for the kind of traffic the church generates. The church has repeatedly violated the weight restrictions put on the road to halt further damage.

During the lawsuit over the first EIS, Ed Francis denied to the judge any relationship between the church and the church-sponsored, defacto subdivisions at Emigrant known as Glastonbury North and South. He also grossly misrepresented how often church members from Glastonbury visit the south ranch. We have a video tape of Ed Francis talking to church faithful telling them how to get around the Montana Subdivision Law in order to buy small, affordable pieces of land in Glastonbury without having to undergo subdivision review. Not only is this bad in terms of large-scale evasion of the subdivision law, but also in terms of seeing lying and cheating rewarded, not punished, it has changed the atmosphere in this county

Speaking of seeing lying and cheating rewarded, not punished - the turmoil associated with the church's pumping of its geothermal well last week is typical. CUT broke a legally binding agreement (the mitigation contract in the first EIS); the action had absolutely appalling environmental consequences (damage to Yellowstone Park's geothermal resources); and when it was over and the church was forced to stop pumping, there was absolutely no remorse, but instead an amazing attempt to blame others for what happened. We have seen this course many, many times over with the Church Universal and Triumphant. Lying, destruction, lying, blaming others, breaking the law, lying. It will be a difficult thing to assess in your document, but if you if you don't try to analyse the effect of repeated deception, you will miss a big part of the church's impact on this community. There is a great deal of frustration and anger.

Another incident that was also played out in the public record, namely the local news media, was when church children fled from their parents in the spring of 1990 because they were afraid of having to go live underground. When local Livingston people tried to help these scared children they were accused of kidnapping and other crimes. This type of thing is disturbing to a community.

The whole atmosphere of crisis brought about by the church during the building of the bomb shelters and the preparation for "dark times" is bound to be repeated and the numerous abuses will happen again. I am enclosing copies of several newspaper stories from the spring of 1990 to illustrate the kinds of problems that arose and to point out the extent of law enforcement and county government involvement in church related issues at the time.

A reading of the police logs kept during this period would indicate many of the problems associated with the church in general and the church during crisis. Police logs will also provide several traffic counts of cars leaving church services. Police logs, or interviewing some of the officers such as Sheriff Charlie Johnson and Deputies Lee Keto and Gary Tenascu (local Gardiner deputy) will indicate the extent of law enforcement time spent on church related issues. These impacts have been enormous.

Police logs as well as media reports will document a number of incidents where church members threatened others with guns. There are many other stories out there of similar incidents.

Since 1989 there have been big impacts on the local postal service, both in Emigrant and in Gardiner. Phone service almost broke down entirely in the winter and spring of 1990 when there was a surge in new connections that the antequated system could not handle. The amount of disturbed land on all of the church's holdings, especially the Glastonbury subdivisions should be known and the implications for sedimentation, air quality and weeds evaluated. I am enclosing photos of blowing dust at Ranch Headquarters on the south ranch and careless roading at Glastonbury

The church's agricultural and management practices have not always been good or in accord with its public statements. In July, 1989, the church published a "Special Environmental Bulletin" to counteract bad publicity after the discovery of its massive staff bomb shelter in upper Mol Heron Creek. Information available at the time and other information uncovered since then indicates many inaccuracies or outright lies in this propoganda sheet.

For instance, in public the church has said its wooden fence is designed to keep its cattle out of the Park and to keep buffalo from being hunted on church land. But in private, at a Christmas/New Years conference in 1986, Ed Francis expresses his hope that the wooden fence would cause starving bison to stack up against the fence in public view and force the Park Service to act. The Environmantal Bulletin says that the church "finally agreed to" a depredation hunt for pronghorn, whereas, in fact, they requested a hunt. In another instance, the church ballyhoos that "Bighorn and Domestic Sheep Will Not Mix, Church Signs Agreement to Keep Herds Apart". In fact, this spring, the church had a herd of domestic sheep in the pasture they agreed with the State not to use for domestic sheep.

The church has had a major impact on social services (welfare, medicaid) in Park County, on county government (especially commissioners, planners and sanitarians), on schools, on traffic, on public health and safety, on and on. There has yet to be an adequate study of these subjects.

The most recent church conference, the main part of which just concluded, would be a good case study for many of the problems and a thorough examination of the impacts associated with that would be revealing. Figures must be requested from the church on the number of people attending the various sessions and then you have to look at how those people and their various needs impacted the social and physical environment. These conferences are not one time events. The church hosts many of them and their impacts are real. A thorough study of this one would be revealing.

Enough for now. The subject is immense and difficult to approach. We hope you are able to be discerning in your analysis.

Sincerely,

Julia Page

Enclosures:
- copy, audio tape 1/1/86
- copy, RTR News Special Environmental Bulletin 7/4/89
- copy, Livingston Enterprise, 3/14, 3/15, 3/20, 4/4/90
- copy, Bozeman Chronicle 3/16/90
- 4 photos, fall 1991, confluence Mol Heron and Cinnabar Creeks
- photo, Ranch Headquarters, dust
- 2 photos, land disturbance and careless roading, Glastonbury
- copied from RTR News, 4/4/83
- photo, upper Mol Heron Creek, conference site, 1987

Upper Yellowstone Defense Fund
Box 405 — Gardiner, Montana 59030

August 24, 1992

Mr. Steve Pilcher
Administrator, Environmental Sciences Division
Montana Dept. of Health and Environmental Sciences
Cogswell Building
Capitol Station
Helena, MT 59620

Dear Steve:

During the week of August 17-21, we observed CUT starting what appears to be a major new development north of Mol Heron Creek just up from the old Trestle ranch. A huge excavation and berm was being cut with large dozers and a scraper, in a previously undeveloped location. Crew toilet facilities have been installed and a new access road bulldozed.

On Monday, August 17, I called you and you told me that CUT was siting a modular house. I said the disturbed area was as big as a football field and that the excavation was deep enough to hide the heavy machinery. You agreed to check with Ed Francis and call back.

When you didn't return my call, I called and got Tom Ellerhoff. He indicated that he understood that William Smith had recently called your office to inform you that CUT was planning to site a modular unit, and that now, he understood, the plans called for a double-wide garage and possibly a swimming pool and tennis court. He also mentioned that originally CUT had said it was going to install the modular unit inside the Ranch Headquarters compound.

In order to avoid having to deal with another constructed development, about which little can be done after the fact, we would like each of the following questions answered immediately. We would appreciate an answer by fax before the end of the day Thursday:

1) When were you informed of this development project?

2) How were you informed?

3) By whom were you notified?

4) Was the full scope and location of the development revealed before we contacted you?

5) How does this reconcile with the ongoing EIS process?

6) How does this reconcile with the consent decree?

The public has been led to believe that major new construction will not occur until after the EIS process is completed. If this is not the case, then the public needs to be made aware that the entire process is a meaningless sham and that the State sold the farm with the Consent Decree.

We await your response. Our fax number in Gardiner is 848-7541.

Sincerely,

Julia Page

cc: Park County Commissioners
Richard J. Dolan
Tom Shands

IMPORTANT SALE UPDATE

Oct, 23, 1989

For Keepers of the Flame

Royal Teton Ranch

FOOD STORAGE PROGRAM
Box A, Livingston, MT 59047-1390

7 Reasons to Order Your Food Storage Today!

1 Every Item Offered Is Handpicked!

You'll find that every item you purchase from the Royal Teton Ranch has been approved by our food-production professionals. Many of the foods available are grown right here at the Ranch! where our staff has pioneered one of the nation's most innovative organic farms. All of the food that we purchase from other suppliers is first visually inspected and as necessary tested for purity. Foods not normally cooked with at the Ranch are prepared and sampled in our test kitchen. Often foods are rejected until we find a product that meets a practical balance between premium quality and affordability. Be sure to note that almost all our fruits and vegetables are packed without the use of additives or preservatives (exceptions are noted on the price list).

2 Organic and Unsprayed Products Are Available

A good portion of what we offer is certified organic or unsprayed product, grown and stored without the use of synthetic chemical pesticides, herbicides, fungicides or fumigants. You'll find them identified as such on the price list.

3 We Test for Pesticide or Fumigant Contamination

When purchasing foods from outside suppliers we understand that "discount prices" and "good buys" can often mean older food obtained at lower prices resulting in low nutritional content. Some foods are heavily sprayed with pesticides or fumigants such as Phos Toxin which is a form of nerve gas.

To insure that the food you store for the long term will truly give nourishment, we purchase from trustworthy suppliers and require extensive product information. If we're concerned about the sample we receive, we send it to an independent lab for testing to guarantee that we're purchasing the safest foods possible.

4 Sophisticated Processing Methods Ensure Top-Quality Products

Unlike many commercial food storage processors, RTR manages your food from the field to the sealed can!

Immediate handling of fresh crops, speedy refrigeration of vegetables following harvest, and careful management of the food through the drying and canning process make our product unique. Every food item is individually analyzed for how it should be processed and dehydrated in order to ensure peak quality and maximization of its nutritional potential.

SEE BACK PAGE FOR THE GARDEN SEED PROGRAM

5 Quality Packaging

All our foods are packaged in specially designed plastic buckets or enamel-coated #10 cans that are vacuum nitrogen packed and sealed in a two-step process to ensure increased long-term shelf life.

The 5-gallon buckets are extremely practical as they will not dent, they stack easily, and once emptied nest inside each other for space sensitive storage. Manufactured of the highest quality food grade plastic, the buckets are sealed with a gasketed lid to maintain the nitrogen atmosphere.

For large group orders, special bulk packaging in nitrogen flushed foil pouches is also available. This allows for more economical purchasing and space efficient storage.

6 We Offer a Comprehensive Program for Survival

Our staff of food-production professionals and registered dieticians have devoted many hours to determining a balanced program to meet the needs of individuals in high-stress environments such as natural disasters or other emergency situations. Every item we offer has been individually considered and planned for, with particular attention placed upon meeting the special dietary preferences of Keepers of the Flame. By purchasing directly from reliable macrobiotic manufacturers in Japan, we're able to provide many of those macrobiotic foods recommended as essential to guarding against radiation and other environmental hazards.

7 Customized Programs for Small & Large Groups

Whether you're planning to feed a large family or a group of 100 or more, we can custom purchase and package to meet your specific requirements. Fully macrobiotic packages can be arranged upon request (prices vary accordingly).

When possible we work with those who need out-of state delivery to reduce freight costs by coordinating group shipping. Additionally, based upon the Ranch's own food storage program we can help tailor programs for your group.

CALL
1-800-245-5445
FOR EASY ORDERING

The RTR Food Storage Program is a service to the membership of Church Universal and Triumphant. Sales through this program can be made only to registered Communicants and Keepers of the Flame.

NEW ITEMS TO ROUND OUT YOUR FOOD STORAGE PROGRAM

The RTR Food Storage Program is expanding its offering to meet the needs and concerns of Keepers of the Flame who are focusing their attention on being prepared.

Macrobiotic Essentials:

Bancha Tea
Bonito Fish Flakes
Burdock Root
Daikon
Kuzu
Nigari (for making Tofu)
Tempeh Starter
Vinegars—Apple Cider, Brown Rice and Ume
Koji Starters (for making Amazake, Miso and Shoyu)
Plus a quality selection of seaweeds

Fruit Juice Powders

(specially requested for preparing children's Kuzu desserts!)

Apple
Cranberry (excellent medicinal juice)
Grape (also for preparing Holy Communion)
Raspberry

☆ DON'T MISS OUR *HARVEST SPECIALS* ON BACK OF PRICE LIST/ORDER FORM

Now Available

SEITAN!

An easily digestible and versatile macrobiotic meat substitute, Seitan is made from Montana grown hard red winter wheat (the highest protein wheat available). Ranch staff grind the wheat to a quality whole grain flour (leaving the bran), knead and shape, wash the starch out with water and then cook the remaining gluten mix in a Shoyu/Kombu broth. Dehydrated and vacuum nitrogen canned for long-term storage, Seitan is an outstanding high protein vegetarian main course that has a light flavorful taste and mixes well with any dish. Eat it dry as a cracker, or reconstituted as an adjunct to your favorite dishes. No preservatives or artificial additives.

SEE YOUR PRICE LIST TO ORDER

QUALITY HARDWARE AND ACCESSORIES

Katydyn Water Filters

Swiss manufactured, the Katydyn filter uses a simple mechanical process of micro-filtration with ceramic filters whose pore size is smaller than the smallest bacteria. Unlike chemical or carbon based filters, Katydyn is not dependent on uncontrollable variables such as temperature, acidity or the level of dissolved or suspended mineral and organic matter. These filters protect against microorganism contamination.

Household Filter (up to 3/4 gal. per minute)
For installation at the end of a horizontal supply pipe. Minimum required pressure is 30 p.s.i., maximum is 90 p.s.i. Heavy duty plastic housing holds one ceramic element. (14" x 5" without faucet, 6 lbs.) $265.00

Drip Filter (up to 4 gal. per day)
Effective for environments with unpredictable water pressure, this unit works on gravity pressure. Raw water is filled on top and slowly drips through three ceramic elements into the bottom container. (26" x 11", 12 lbs.) $315.00

Handpump Filter (6 pints per minute)
An appliance that requires little room, the handpump filter measures 23" x 6" x 8" and weighs in at only 10 lbs. 13 oz. A mobile filter you can set up anywhere. $625.00

Emergency Pocket Filter (up to 1 qt. per minute)
This is a portable, self-contained device that is easy to use in any situation. Each unit includes an intake strainer to eliminate coarse debris, cleaning brush and user instructions. Handily packs into its own zippered soft carrying case. $210.00

Spare Filter Elements
The lifespan of the filters depends upon the degree of contamination in the water you are filtering. Simple brushing of the dirty ceramic element surface will regenerate the filter. However, every cleaning operation removes a thin layer of the ceramic material. Cleaning can be repeated 200 to 300 times before replacement of the filter is necessary.
Household Filter $59.00
Drip Filter $59.00
Handpump Filter $59.00
Emergency Pocket Filter $120.00

Pressure Cookers

This cookware provides the most thorough and efficient way to prepare whole cereal grains, especially brown rice. Also excellent for cooking beans, dehydrated vegetables or one pot meals. Quality stainless steel.
Lagastino, 14 qt. $194.95
Aeternum, 8 qt. $99.95
Aeternum, 5-1/2 qt. $93.50
Replacement Plug Lagastino $6.95 *Aeternum* $1.00

Sprouting *for Health and Protein!*

A quality fresh food to supplement a survival program diet, sprouts are a good source of vitamins, protein and chlorophyll. These trays will work well for all your sprouting seeds.
Rubbermaid™ tray (12" x 10" x 2 1/2") $9.80
Tray cover for stacking $6.85

Edlund Industrial Can Opener

A heavy-duty opener built to last! Manufactured of cast-iron with stainless steel blades. Countertop mounting. $68.00

Spare Parts Kit consists of additional base, holder, blade and screw. $14.00

Royal Teton Ranch

FOOD STORAGE PROGRAM
Box A, Livingston, MT 59047-1390

PRICES VALID THROUG
November 10, 19

Price List / Order For

PRODUCT	#10 CANS					5-GAL BUCKETS					BULK (Cleaned and bagged)				
	Item No.	QTY	Approx Net Wt.	Price	Subtotal	Item No.	QTY	Approx Net Wt.	Price	Subtotal	Item No.	QTY	Approx Net Wt.	Price	Subtota
GRAINS	GR														
● Barley, Pearled (RTR Organic)	04		5.75	$ 3.18	$	05		37	$13.46	$	06		50	$14.25	$
● Barley, Unhulled (RTR Organic) *			N/A			08		28	$10.88	$	09		50	$ 9.00	$
Buckwheat Groats	10		5.25	$ 7.08	$	11		35	$42.37	$	12		50	$50.71	$
Corn, Yellow (Organic)	16		5.25	$ 2.37	$	17		32	$ 9.86	$	18		60	$ 9.04	$
Millet (Organic)	19		6.00	$ 3.85	$	20		37	$17.57	$	21		50	$17.25	$
Millet, Unhulled (Organic) *			N/A			23		30	$12.90	$	24		50	$12.86	$
Oats, Rolled	25		3.00	$ 3.18	$	26		22	$18.99	$	27		50	$32.25	$
● Oats, Unhulled (RTR Organic) *			N/A			97		27	$12.38	$	30		50	$12.75	$
Pasta, Egg Noodles	31		2.00	$ 2.98	$	32		18	$19.25	$			N/A		
Pasta, Elbow, Durum Wheat	34		3.50	$ 4.27	$	35		23	$21.31	$			N/A		
Pasta, Spaghetti, Durum Wheat	37		4.00	$ 3.94	$	38		29	$23.94	$			N/A		
Popcorn (Organic)	40		5.75	$ 3.90	$	41		41	$23.49	$	42		50	$22.40	$
Quinoa (Organic)	43		5.00	$11.36	$	44		35	$72.00	$	45		50	$91.43	$
Rice, Short Grain Brown	46		6.00	$ 3.04	$	47		38	$14.40	$	48		50	$14.05	$
● Rice, Short Grain Paddy *			N/A			50		28	$13.59	$	51		50	$12.16	$
● Rice, Med. Grain (Unsprayed)	52		6.00	$ 3.64	$	53		38	$17.89	$	54		50	$17.51	$
Rice, Basmati, White (Domestic)	55		5.50	$ 3.39	$	56		38	$18.50	$	57		50	$17.21	$
Rice, Basmati Brown (Domestic)	91		5.50	$ 3.64	$	92		38	$18.89	$	93		50	$17.76	$
● Rice, Basmati Paddy (Domestic) *			N/A			59		29	$14.48	$	60		50	$14.54	$
Rice, Sweet Brown	61		6.00	$ 3.33	$	62		38	$17.63	$	63		50	$17.59	$
● Rice, Sweet Paddy *			N/A			65		28	$14.13	$	66		50	$15.33	$
Rye	67		5.00	$ 2.13	$	68		36	$12.03	$	69		55	$11.23	$
Wheat, Hard Red	70		5.75	$ 2.16	$	71		38	$ 9.99	$	72		60	$ 9.75	$
● Wheat, Hard Red (RTR)	73		5.75	$ 2.51	$	74		38	$12.42	$	75		50	$ 9.75	$
Wheat, Hard Red (Organic)	82		5.75	$ 2.81	$	83		38	$14.24	$	84		50	$11.25	$
Wheat, Durum (Organic)	98		6.00	$ 2.97	$	80		38	$13.63	$	81		50	$10.50	$
Wheat, Soft White (RTR Organic) 15% Discount!	88		5.75	~~$ 2.99~~ $ 2.54	$	89		38	~~$15.50~~ $13.18	$	90		50	~~$12.50~~ $10.63	$
LEGUMES	LE														
Aduki Beans	01		5.80	$ 7.17	$	02		40	$42.60	$	03		50	$45.00	$
Garbanzos (Unsprayed)	04		5.50	$ 4.64	$	05		38	$27.60	$	06		50	$29.60	$
Kidney Beans	10		5.50	$ 6.84	$	38		34	$33.62	$	12		50	$46.43	$
Lentils (Unsprayed)	13		5.75	$ 4.28	$	14		35	$16.24	$	15		50	$17.86	$
Mung Beans	16		5.50	$ 5.08	$	17		37	$27.07	$	18		50	$28.67	$
Navy Beans	19		5.50	$ 4.73	$	20		36	$26.94	$	21		50	$30.00	$
Pinto Beans	22		5.50	$ 5.61	$	23		34	$30.81	$	24		50	$37.14	$
Soybeans, Black (Unsprayed)	25		5.25	$ 7.21	$	26		35	$37.88	$	27		50	$45.00	$
Soybeans, Yellow (Organic)	28		5.25	$ 3.24	$	29		35	$15.83	$	37		60	$18.00	$
Split Peas, Green	31		6.00	$ 2.96	$	32		38	$13.78	$	33		50	$11.96	$

Column Subtotal $__________

Column Subtotal $__________

Column Subtotal $______

Rev.89-5

PAGE 1 SUBTOTAL $______

● = Items in short supply. Available while quantities last.

* = Unhulled grains cleaned before packaging, dehulling equipment required.

PRODUCT	#10 CANS					5-GAL BUCKETS					BULK (Cleaned and bagged)				
	Item No.	QTY	Approx Net Wt.	Price	Subtotal	Item No.	QTY	Approx Net Wt.	Price	Subtotal	Item No.	QTY	Approx Net Wt.	Price	Subtot
PROTEINS	PT														
Cheese Powder, Cheddar**	01		3.50	$11.76	$			N/A					N/A		
Egg Mix, Instant	02		3.50	$10.92	$			N/A					N/A		
Egg Powder, Whole	03		3.25	$12.74	$			N/A					N/A		
Milk, Nonfat Dry	04		3.75	$10.48	$			N/A					N/A		
Goat Milk, 14 oz. tin	05		.88	$ 7.63	$			N/A					N/A		
Goat Milk, powdered	06		3.50	$23.65	$			N/A					N/A		
Soy Milk, powdered**	07		3.75	$14.73	$			N/A					N/A		
TVP (Tex. Veg. Protein)	08		3.50	$ 3.25	$			N/A					N/A		
Tuna, wet-pack 66.5 oz. tin	14		4.16	$9.61	$			N/A					N/A		
Tuna, wet-pack 6.5 oz. tin	15		.41	$1.21	$			N/A					N/A		
● Beef, diced/freeze-dried	10		1.25	$27.15	$			N/A					N/A		
● Chicken, diced/freeze-dried	09		1.25	$31.40	$			N/A					N/A		
● Turkey, diced/freeze-dried	13		1.25	$29.28	$			N/A					N/A		
● Seitan, dehydrated (RTR produced macrobiotic meat substitute/wheat protein)	16		1.40	$33.00	$										
VEGETABLES	VE														
Beans, Green	01		1.00	$9.64	$			N/A					N/A		
Broccoli	03		1.00	$14.43	$			N/A					N/A		
Burdock	31		2.00	$29.40	$			N/A					N/A		
Cabbage, Chinese	06		.50	$ 5.88	$			N/A					N/A		
Cabbage, Green (RTR Organic)	05		1.00	$ 6.14	$	**For every 5 cans purchased, receive 1 FREE!**									
Carrots	07		2.20	$ 7.60	$			N/A					N/A		
● Carrots (RTR Organic)	09		2.00	$ 8.98	$			N/A					N/A		
Celery	08		1.00	$ 7.73	$			N/A					N/A		
Corn, Sweet	10		2.85	$16.35	$			N/A					N/A		
Daikon	32		1.00	$10.15	$			N/A					N/A		
● Kale (RTR Organic)	12		1.00	$11.72	$			N/A					N/A		
Onion Dices	13		2.80	$ 7.08	$			N/A					N/A		
Peas, Garden Green	15		3.00	$14.56	$			N/A					N/A		
Peppers, Bell	16		1.00	$ 7.30	$			N/A					N/A		
Potato Dices **	17		2.50	$ 4.36	$			N/A					N/A		
Potato Dices (RTR Organic)	20		2.50	$ 5.45	$	**For every 5 cans purchased, receive 1 FREE!**									
Potato, Granules **	18		6.00	$ 7.17	$			N/A					N/A		
● Squash, Winter (Unsprayed)	21		2.00	$11.10	$			N/A					N/A		
● Sweet Potato Dices	22		2.70	$ 8.72	$			N/A					N/A		
Tomato Powder	23		4.00	$21.92	$			N/A					N/A		
Tomato Flakes	33		1.30	$ 9.59	$			N/A					N/A		
NUTS AND SEEDS	NS														
Alfalfa Seeds/Sprouting	01		5.50	$11.50	$	02		40	$75.60	$	03		50	$85.00	$
Almonds	04		4.00	$13.92	$	05		24	$76.80	$			N/A		
Buckwheat Seeds/Sprouting	23		4.00	$ 3.04	$	24		28	$17.19	$	25		50	$21.07	$
Pumpkin Seeds	07		4.00	$10.72	$	08		24	$58.80	$	09		55	$117.86	$
Radish Seeds/Sprouting	10		5.00	$ 9.36	$	11		35	$58.88	$	12		50	$73.57	$
Sesame Seeds	13		4.50	$ 6.16	$	14		28	$34.27	$	15		50	$50.00	$
Sunflower Seeds	16		4.00	$ 5.60	$	17		26	$31.71	$	18		50	$50.00	$
Sunflower Seeds/Sprouting	19		2.50	$ 4.55	$	26		18	$26.13	$	21		50	$56.43	$
FRUIT JUICE POWDERS	FJ														
Apple (with maltodextrin)	01		3.75	$30.82	$			N/A					N/A		
Cranberry	02		3.75	$66.25	$			N/A					N/A		
Grape (with maltodextrin)	03		3.75	$21.52	$			N/A					N/A		
Raspberry	07		3.75	$68.75	$			N/A					N/A		

Column Subtotal

Column Subtotal $__________

Column Subtotal $____

● = Items in short supply. Available while quantities last.

** = These products may contain preservatives or additives

PAGE 2 SUBTOTAL $______

PRODUCT		#10 CANS					5-GAL BUCKETS					BULK (Cleaned and bagged)				
		Item No.	QTY	Approx Net Wt.	Price	Subtotal	Item No.	QTY	Approx Net Wt.	Price	Subtotal	Item No.	QTY	Approx Net Wt.	Price	Subtotal
FRUITS (Low Moisture)		FR														
Apples (Unsulphured)		01		1.25	$ 6.78	$			N/A					N/A		
A[illegible]ots (Unsulphured)		02		2.50	$29.78	$			N/A					N/A		
• Date Pieces (Unsulphured)		03		3.50	$12.64	$			N/A					N/A		
Peaches (Unsulphured)		05		2.50	$18.58	$			N/A					N/A		
Pears (Unsulphured)		06		2.75	$13.88	$			N/A					N/A		
• Prunes (Unsulphured)		07		3.20	$11.12	$			N/A					N/A		
Raisins (Unsulphured)		08		4.00	$10.46	$			N/A					N/A		
SUPPLEMENTARY ITEMS		SU														
Bronner's Protein		03		5.00	$18.37	$			N/A					N/A		
Butter Powder**		04		3.50	$12.98	$			N/A					N/A		
Flour, Masa "Taco #1"		05		3.60	$ 2.47	$			N/A					N/A		
Honey (Tub)		06		5.00	$ 6.23	$	07		60	$57.60	$			N/A		
Margarine Powder**		08		3.50	$ 7.47	$			N/A					N/A		
Peppermint Tea		09		.70	$ 2.88	$			N/A					N/A		
Salt, non-iodized		10		9.00	$ 2.71	$	11		58	$12.64	$	12		50	$ 6.43	$
Tapioca		16		3.00	$ 4.19	$			N/A					N/A		
SPECIAL PACKAGING ITEMS																
	Container Size	SP														
Baking Powder (No Al)	#2.5	01		2.00	$ 3.67	$			N/A					N/A		
Baking Soda	#2.5	02		2.00	$ 2.04	$			N/A					N/A		
: Bancha Tea	#10	32		1.30	$13.71	$	33		11.00	$92.14	$			N/A		
: Bonito Fish Flakes	pouch	34		.50	$22.30	$										
Bronner's Minerals	#2.5	03		1.00	$ 5.13	$			N/A					N/A		
Cornstarch	#2.5	04		1.00	$ 1.26	$			N/A					N/A		
Garlic Powder	#2.5	07		1.00	$ 4.14	$			N/A					N/A		
Gin[illegible] Powder	#2.5	08		1.00	$ 2.96	$			N/A					N/A		
Jen[illegible]s Seasoning	#2.5	06		1.00	$ 8.62	$			N/A					N/A		
Kuzu	#2.5	35		1.00	$15.58	$										
Miso	#10	09		6.60	$24.43	$	25		40	$112.80	$			N/A		
Nigari	#10	36		6.00	$13.40	$	Yields 1,260 lbs. of Tofu									
Oil, Olive	25.4 oz.	10		1.50	$10.95	$			N/A					N/A		
Oil, Sesame	#10	45		5.50	$18.01	$			N/A					N/A		
Onion Powder	#2.5	14		1.00	$ 3.12	$			N/A					N/A		
Seaweed, Dulse, Whole	bag	15		1.00	$14.00	$			N/A					N/A		
Seaweed, Kelp powder	#10	16		5.00	$19.92	$			N/A					N/A		
Seaweed, Kombu	bag	17		1.00	$25.44	$			N/A					N/A		
Seaweed, Nori	50 sheets	18		0.23	$13.60	$			N/A					N/A		
Seaweed, Wakame	bag	19		1.00	$21.12	$			N/A					N/A		
Shoyu	32 oz.	20		2.00	$ 4.72	$	21		40	$51.92	$			N/A		
Tempeh Starter	#2.5	37		1.00	$55.80	$	Yields 250 lbs. of Tempeh									
Umeboshi Paste	#10	22		6.60	$60.50	$			N/A					N/A		
Vinegar, Apple Cider	1 gal.	38		8.00	$ 4.05	$			N/A					N/A		
Vinegar, Brown Rice	1 gal.	39		8.00	$29.05	$			N/A					N/A		
Vinegar, Ume	1 gal.	40		8.00	$14.79	$			N/A					N/A		
Yeast, Bakers	box	23		1.10	$ 3.76	$			N/A					N/A		
Yeast, Nutritional	#10	24		2.80	$ 9.86	$			N/A					N/A		
OJI STARTERS (each packet below produces 440 lbs. of Koji)																
Barley	packet	41		40 gr.	$21.50	$	Yields 1,100 lbs. regular Barley Miso									
Red Rice	packet	42		40 gr.	$21.50	$	Yields 1,100 lbs. Red Rice Miso									
Shoyu	packet	43		60 gr.	$21.50	$	Yields 100 gal. Shoyu									
Swe[illegible]hite	packet	44		40 gr.	$21.50	$	Yields 1,100 lbs. Sweet White or Light Yellow Miso OR 440 lbs. Amazake									

Column Subtotal $____ al $__________ Column Subtotal $__________

= Items in short supply. Available while quantities last.
= These items may contain preservatives or additives.
= These items may not be available after 11/10/89.

PAGE 3 SUBTOTAL $__________

ORDER TOTAL $__________

HARVEST SPECIALS
FROM YOUR FRIENDS AT THE RANCH!

RTR
ORGANIC

Green Cabbage *Buy 5 cans—Get 1 Free!*

(RTR organic) Grown organically at the Ranch, this cabbage is high in vitamin C and a great source of natural roughage. A good basic green to help build a balanced diet.

Soft White Wheat *15% Off!*

(RTR organic) This Ranch grown organic whole wheat grinds to a quality unbleached flour for baking bread or whole grain products (not for "white" bread!). It makes a delicious cracked wheat cereal, and is useful in cooking as a thickener. Perfect for sprouting wheatgrass too. This is a lighter, softer wheat than the hard red variety.

Potato Dices *Buy 5 cans—Get 1 Free!*

(RTR organic) An excellent source of potassium, organically grown potatoes are a favorite at the Ranch! Use them as a hearty addition to soups or stew, or as a tasty side-dish.

MACROBIOTIC COOKING

***Complete Guide to Macrobiotic Cooking* / Kushi & Jack**
Learn to harmonize meals with the seasons and make use of the medicinal energies of different foods. 414 pp./paperback

***Macrobiotic Kitchen* / Aihara**
Concise methods for preparing meals. Includes extensive glossary and illustrated techniques of vegetable cutting. 140 pp./large paperback

***The Changing Seasons Macrobiotic Cookbook* / Kushi & Esko**
Hundreds of simple, flavorful recipes. Learn to follow the ancient principles of macrobiotics through the cycles of the year. 265 pp./large paperback

***The Macrobiotic Community Cookbook* / Lerman**
Innovative recipes from a healthful blend of Eastern and Western cooking. 199 pp./paperback

"HOW TO" GUIDES

***Cooking with Seitan* / Jacobs**
A complete introduction to this versatile high-protein macrobiotic meat substitute. Includes instructions for making Seitan plus recipes. 240 pp./paperback

***Book of Tempeh* / Shurtleff & Aoyagi**
Easy to follow instructions to make tempeh along with 130 tempting western style recipes. Includes nutritional analysis of tempeh. 173 pp./large paperback

***Book of Tofu* / Shurtleff & Aoyagi**
Over 500 original recipes from East and West, along with instructions on how to make tofu. Includes nutritional analysis of tofu. 335 pp./large paperback

OTHER HEALTHY COOKBOOKS

***Diet for a Small Planet* / Lappe**
Learn to utilize and combine vegetarian foods to obtain high quality protein. Includes recipes and charts. 301 pp./paperback

***Ten Talents* / Hurd**
A classic guide on vegetarian food-combining. Extensive recipes emphasizing a low-cholesterol diet without the use of dairy products, leavenings or refined sugars. Illustrated. 368 pp./paperback

***The Joy of Cooking* / Rombauer & Becker**
A highly comprehensive cookbook for all kinds of foods. A standard reference for every good cook! 915 pp./paperback

IMPORTANT REFERENCE BOOKS

***Acid & Alkaline* / Aihara**
How the acid/alkaline balance of the West relates to the yin/yang of the East. Learn to classify foods. Dietary ways to stop or prevent cancer. 121 pp./paperback

***Diet for the Atomic Age* / Shannon**
Examines the problem of low-level radiation. Gives medical and scientific data on how certain foods and supplements can protect you. 316 pp./large paperback

***Macrobiotic Diet* / Kushi**
A comprehensive guide to understanding macrobiotics. 288 pp./large paperback

***Natural Immunity* / Muramoto**
Discover answers to questions on the role of diet in immune system health. 322 pp./paperback

***Stocking Up III* / Hupping**
Complete step-by-step instructions for freezing, canning, drying, root cellaring, and preparing almost every food imaginable for storage. 627 pp./hardback

From our heart to yours!

The Ranch's Own—*A Guide to Preparing & Cooking Your RTR Food Stores*
This comprehensive reference manual is a must for every Keeper of the Flame making survival preparations. Includes rehydration instructions for foods in the RTR Food Storage Program—all developed through hands-on experience in our test kitchen! Explains the history of the Ranch's program, the purpose of the different foods groups, how to use specific foods, determining daily portions, and the use of different macrobiotic foods for protection against radiation and other environmental hazards. Also includes charts for cooking grains and beans, a chart for sprouting seeds, basic recipes and "how to" instructions for making Tofu, Okara, Soy Milk, Tempeh, and Seitan. Prepared by the Royal Teton Ranch staff of food-production professionals and registered dieticians. approx. 25 pp./spiral bound

From Keepers of the Flame!

***Macro Cooking* / Westerbeek**
This special reference book is intended to assist in the preparation and maintenance of a shelter kitchen in which balanced meals can be prepared. Includes a guide for purchasing, storing, preparing and cooking foods for survival — special recipes for babies and children as well as adults. Also includes macrobiotic first-aid recipes. The author is a professional macrobiotic cook certified by the Kushi Institute. 65 pp./spiral bound

***Noah's Ark Menu Planning* / Lucas**
An extensive planning and management guide for your food storage program. Includes a complete inventory checklist. 33 days of recipes encompass macrobiotic as well as dairy and meat products. Directions for cooking with dehydrated vegetables, grains and beans (even how to make favorites like spaghetti!). Compiled by a Keeper of the Flame. 50 pp./spiral bound

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ORDER FORM

RTR Food Storage Program

QUANTITY	ITEM #	DESCRIPTION	COST PER UNIT	TOTAL COST
		GRAIN MILLS/DEHULLERS		
	ML001	Corona Grain and Corn Mill/Dehuller	$ 135.00	$
	ML004	*Additional dehulling attachments*	45.00	
	ML007	*Extra Parts Kit*	75.00	
	ML002	Little Ark Hand Grist Mill/Dehuller	155.00	
	ML005	*Additional dehulling attachments*	65.00	
	ML008	*Extra Parts Kit*	85.00	
	ML003	Diamant Mill/Dehuller	670.00	
	ML006	*Additional dehulling attachments*	110.00	
	ML009	*Extra Parts Kit*	175.00	
	ML100	RTR Electric Grain Winnower	250.00	
		JAPANESE GRAIN PROCESSING SYSTEM		
	ML200	*Complete 5-piece system*	$ 8,276.00	$
	ML201	Thresher	1,834.00	
	ML202	Manual Impact Huller	2,943.00	
	ML203	Blower Winnower	866.00	
	ML204	Grain Separator	815.00	
	ML205	Rice Polisher	1,818.00	
		KATYDYN WATER FILTERS		
	WF001	Household Filter	$ 265.00	$
	WF010	*Spare Filter Element*	59.00	
	WF002	Drip Filter	315.00	
	WF011	*Spare Filter Element*	59.00	
	WF003	Portable Hand-Pump Filter	625.00	
	WF012	*Spare Filter Element*	59.00	
	WF004	Emergency Pocket Filter	210.00	
	WF013	*Spare Filter Element*	120.00	
		PRESSURE COOKERS		
	PC001	14 qt. Lagastino Stainless Steel	$ 194.95	$
	PC002	8 qt. Aeternum Stainless Steel	89.95	
	PC003	5 1/2 qt. Aeternum Stainless Steel	84.95	
	PC005	*Replacement Plug* Lagastino $6.95/Aeternum $1.00	6.95/1.00	
		OTHER IMPORTANT ACCESSORIES		
	HD006	Edlund Industrial Can Opener	$ 68.00	$
	HD007	*Spare Parts Kit*	14.00	
	HD008	Rubbermaid 2 1/2" Sprouting Tray	9.80	
	HD009	Tray Cover for Stacking	6.85	
		MACROBIOTIC COOKING		
	2179	Complete Guide to Macrobiotic Cooking/Kushi & Jack	$ 13.95	$
	2429	The Changing Seasons Macrobiotic Cookbook/Kushi & Esko	12.95	
	2530	The Macrobiotic Community Cookbook/Lerman	12.95	
	2526	Macrobiotic Kitchen/Aihara	9.95	
	BK002	Macro Cooking/Westerbeek	13.75	
		OTHER HEALTHY COOKBOOKS		
	2636	Diet for a Small Planet/Lappe	$ 3.95	$
	319	Ten Talents/Hurd	14.95	
	2633	The Joy of Cooking/Rombauer & Becker	7.95	
	BK003	Noah's Ark Menu Planning/Lucas	14.95	
		"HOW TO" GUIDES		
	2632	Cooking with Seitan/Jacobs	$ 15.95	$
	2634	Book of Tempeh/Shurtleff & Aoyagi	10.95	
	2635	Book of Tofu/Shurtleff & Aoyagi	3.95	
		IMPORTANT REFERENCE BOOKS		
	2450	Acid & Alkaline/Aihara	$ 5.95	$
	1983	Diet for the Atomic Age/Shannon	8.95	
	2147	Macrobiotic Diet/Kushi	15.95	
	2453	Natural Immunity/Muramoto	12.95	
	2637	Stocking Up III/Hupping	24.95	
	BK001	The Ranch's Own—***A Guide to Preparing and Cooking Your RTR Food Stores*** (produced by the Royal Teton Ranch staff)	7.95	
			SUBTOTAL (see reverse side)	$

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$ 12,403 00

ORDER FORM

RTR Food Storage Program

Prices Valid Through November 10, 1989	
Total from Price List/Order Form (Pages 1–3)	$
Sub-total from reverse side	$

QUANTITY	ITEM #	RECOMMENDED PROGRAM	COST PER PROGRAM	TOTAL COST
	CRM01	#1/Basic 7-Month Unit	$ 363.09	$
	CRM02	#2/7-Month Comprehensive (dairy with no meat)	654.04	
	CRM03	#3/7-Month Comprehensive (minimal dairy with meat)	699.10	
	CRM04	#4/Basic 2-Year Unit	991.35	
	CRM05	#5/Basic 7-Year Unit	3,124.50	
	CRM06	#6/7-Year Comprehensive (dairy with no meat)	7,286.67	
	CRM07	#7/7-Year Comprehensive (minimal dairy with meat)	8,158.86	
	CRM08	Economy Long-Term Unit	997.52	
	CRM09	Supplemental Vegetable Unit	~~208.63~~ 187.67!	
		CHILDREN'S UNITS		
	CHD01	Children's 7-Month Basic (Ages 0–6)	215.20	
	CHD02	Children's 7-Month Basic (Ages 7–12)	288.79	
	SP900	Family Garden Seed Program	165.00	
		SUPPLEMENTAL ITEMS		
	HD003	Bucket opener (metal)	12.00	
	HD004	Bucket opener (plastic)	7.75	
	HD001	Plastic lid for #10 can	.12	
	HD002	Plastid lid for #2.5 can	.08	
	HD005	Removable 5-gal. bucket cover	.90	
☐ I WOULD LIKE TO PICK UP MY ORDER			TOTAL ORDER	$
☐ I WOULD LIKE MY ORDER SHIPPED			AMOUNT ENCLOSED	$

Account No.________________________

Mr./Mrs./Miss ________________________

Address ________________________

City ________________ State ________

Zip ____________ Country ____________

Phone No.(____) ____________________

Method of payment:

☐ Visa ☐ MasterCard ☐ Check/Money Order

☐ Cash (do not send via U.S. Mail)

Credit Card No. ________________________

Exp. Date ________________________

Signature ________________________

FOR CREDIT CARD ORDERING OR FURTHER INFORMATION CALL:

1-800-245-5445

***In Montana Call:* (406) 222-8300**

TERMS

- Payment in full is due at time of order.
- This order form (Rev. 89-5) is valid until 11/10/89.
- Due to market fluctuations, prices are subject to change without notice on or before date of order.
- We reserve the right to make substitutions based upon availability of product at time of order.
- Delivery is within 6–8 weeks from date order is received.
- The RTR Food Storage Program is a service to the membership of Church Universal and Triumphant. Sales through this program can be made only to registered Communicants and Keepers of the Flame.

SHIPPING/PICKUP

- Shipping of individual or bulk orders is available by special arrangement. Please call (406) 222-8300 to arrange shipment.
- Payment for shipping is due in full before order is shipped.
- Shipping is by common carrier or UPS based on best available and most cost-effective method.
- All orders are shipped F.O.B. Livingston, MT.
- PICK-UP orders at our convenient Livingston location. Call for appointment, (406) 222-8300.

STORAGE

- Short-term storage of orders is available by special arrangement. Please inform us of your needs at time of order.

Make Checks/Money Orders payable to and mail to:

Royal Teton Ranch Food Storage Program Dept. 421 • Box A • Livingston, MT 59047-1390

Rev. 89-5

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IMPORTANT GRAIN PROCESSING TOOLS

Long-term storage of grains requires the use of specialized tools for processing. Rice, oats and millet, once the hull is removed (and the bran layer disturbed) may not store longer than 2–3 years without the enzyme activity in the bran causing rancidity (even in nitrogen-packed cans!). For long-term storage these grains should be stored unhulled, and be dehulled prior to use.

The tremendous advantage of unhulled grains is that they can store almost "forever" if properly protected from insects, rodents, moisture and high temperatures.

After dehulling grains the kernel must be separated from the chaff by a process called winnowing—you've probably seen pictures of people in third-world countries tossing their dehulled grain into the air for the wind to blow the chaff!

For grinding grain to flour, the mills we offer include stone burrs. A simple change to metal burrs allows for grinding beans and seeds (which are more oily).

If you desire to prepare fermented foods from the grain (such as tempeh, miso or shoyu) then the grain must be lightly "polished" to remove at least 10% of the bran for enzyme activity to be adequate. This process of polishing can be accomplished with the dehuller attachment we are offering with our grain mills, or with specialized grain polishing equipment.

Corona Grain and Corn Mill/Dehuller

A reliable and durable mill of accurately machined cast-iron parts, the Corona will grind at 1 lb. per minute. It is easily adjustable for fine or coarse grinding—fine flour will require *several passes* through the mill. With a wide funnel for filling grain, the Corona comes fitted with metal and stone burrs as well as the dehuller attachment for rice, millet and oats.* Complete with clamp for table-top use. (For long-term storage plans we recommend an additional back-up unit.)

Mill with stone and metal burrs
and dehuller attachment: **$135.00**
Additional dehulling attachments: **$45.00 each**

*Oats may be more difficult to dehull, requiring several passes through the mill.

Little Ark Hand Grist Mill/Dehuller

American made and manufactured, the Little Ark is a manual mill that *can be motorized* with a fly-wheel. Manufactured of die-cast aluminum alloy for light-weight, high-strength construction the Little Ark has tight fitting burrs that give a superior fine grind. Two wide-stance bolt-down legs provide secure, no-fuss assembly and construction. The small funnel will require an adjunct for large quantities. Comes with dehuller attachment for rice, millet and oats.* (For long-term storage plans we recommend an additional back-up unit.)

Mill with stone and metal burrs
and dehuller attachment: **$155.00**
Additional dehulling attachments: **$65.00 each**

*Oats may be more difficult to dehull, requiring several passes through the mill.

Diamant Grain Mill/Dehuller

This is a Danish manufactured hand or power driven mill popular in Europe. With a much larger capacity than the Corona or Little Ark mills, the Diamant is perfect for large families or groups. The mill's casing and cover are made of cast-iron with long main bearings. The joint surface of the stationary grinding plate is exactly turned. The heart of the mill is the hard-wearing grinding plates, specially cast and hardened. Different grinding plates are supplied for varying purposes and fineness of grind required. The stationary plate is fixed to a turned surface of the grinding mill casing, and the rotary plate is self-balancing so that it will always rest exactly against the stationary one. You can use this special type of mill for wet grinding as it is easily opened and cleaned without any special tools. (Beautiful metallic green finish.) Comes with dehuller attachment for rice, millet and oats.*

Mill with stone and metal burrs
and dehuller attachment: **$670.00**
Additional dehulling attachments: **$110.00 each**

*Oats may be more difficult to dehull, requiring several passes through the mill.

Grain Mill/Dehuller Extra Parts Kit:

This kit is a must for those planning for the long-term use of their grain mill/dehuller. Includes 1 set each of the stone and metal burrs, 1 dehuller attachment, 10 replacement rubber pads with glue for the dehuller and 3 screws.

CORONA MILL: **$75.00**
LITTLE ARK: **$85.00**
DIAMANT: **$175.00**

RTR Grain Winnower

This economical Royal Teton Ranch manufactured device is used after dehulling to separate the kernels from the husk. An electric-powered fan directs air that blows the lighter husks from the grain kernel. Preferable to dusty screens. Instructions included. This is a necessary tool unless you want to hand winnow in the breeze! **$250.00** *(manual unit may be available at a later date)*

Japanese Grain Processing System

Developed for small family farmers in Japan, this unique system allows you to be fully self-sufficient in processing newly harvested or unhulled grain. Consists of 5 individual pieces of equipment manufactured of cold-rolled steel and cast-iron. Can be used for rice, oats, barley, millet, wheat, rye or buckwheat.

Complete 5-piece system: **$8,276.00**

1. Thresher

The hand-operated turning drum holds sheaves of harvested grain to knock the whole grain from the straw. (Don't forget scythes to cut the grain!) **$1,834.00**

2. Manual Impact Dehuller

Manually powered by one or two people with a "see-saw" drive, this high impact dehuller hulls 85–90% in the first pass. Proficiently processes all grains. **$2,943.00**

3. Blower Winnower

This hand-cranked fan winnower separates husks from grain kernels with tremendous efficiency. **$866.00**

4. Grain Separator

Designed as a series of screens that are manually operated, this unit is used to further separate grain after dehulling. Kernels that are fully hulled are separated from those which were not dehulled and require another pass through the dehuller. **$815.00**

5. Rice Polisher

Used by the Japanese to fully polish the bran from their harvested rice, this machine can be used to polish any grain as well as to pearl barley. A great piece of equipment for those determined to be fully self-sufficient. **$1,818.00**

PROGRAMS DESIGNED TO MEET THE SPECIAL NEEDS OF CHILDREN

	7-MONTH Ages 0-6	7-MONTH Ages 7-12
GRAINS		
Barley, Pearled (RTR organic)	1 #10	1 #10
Corn, Yellow (organic)	1 #10	1 #10
Millet (organic)	2 #10	2 #10
Oats, rolled	2 #10	3 #10
Pasta, Elbow, Durum Wheat	1 #10	1 #10
Pasta, Spaghetti, Durum Wheat	1 #10	1 #10
Popcorn	1 #10	1 #10
Rice, Short Grain Brown	1 5-Gal.	2 5-Gal.
Rice, Basmati, White		1 #10
Rice, Sweet Brown	1 #10	
Wheat, Hard Red	1 5-Gal.	1 5-Gal.
LEGUMES		
Garbanzos (unsprayed)	1 #10	1 #10
Lentils (unsprayed)	1 #10	1 #10
Pinto Beans		1 #10
Soybeans, Yellow (organic)	1 #10	1 #10
Split Peas, Green	1 #10	1 #10
PROTEINS		
Milk, nonfat dry	2 #10	3 #10
Egg mix	1 #10	1 #10
VEGETABLES		
Cabbage, Green (RTR organic)	1 #10	2 #10
Carrots	1 #10	1 #10
Kale	1 #10	
Peas, Green	1 #10	1 #10
Potato Granules**	1 #10	1 #10
Squash, Winter (unsprayed)	1 #10	
Sweet Potato Dices	1 #10	1 #10
NUTS & SEEDS		
Sesame Seeds	1 #10	1 #10
Sunflower Seeds	1 #10	1 #10
FRUITS (Low Moisture)		
Apples (unsulphured)	2 #10	2 #10
Raisins (unsulphured)	1 #10	2 #10
SUPPLEMENTARY ITEMS		
Miso		1 #10
Oil, Sesame		1 #10
Seaweed, Kelp Powder	1 #2.5	2 #2.5
Tapioca	1 #10	1 #10

**These vegetables may contain preservatives or additives.

7-MONTH BASIC
(Ages 0–6)

TOTAL COST: $215.20

DAILY CALORIES: 1,474
DAILY PROTEIN: 57.7 GR.
SHIP WT. 218.63 LBS.

7-MONTH BASIC
(Ages 7–12)

TOTAL COST: $288.79

DAILY CALORIES: 2,002
DAILY PROTEIN: 71.7 GR.
SHIP WT. 289.41 LBS.

CHILDREN'S PROGRAMS:

Knowing that many families are looking for the most beneficial and cost-effective means of planning survival food for their children, our registered dieticians and food-production staff have developed specialized 7-month basic programs for children ages 0–12.

Just like our adult "Basic Programs" these units were designed to keep the cost as low as possible, while ensuring adequate nutritional value to meet a child's minimum daily nutritional requirements under survival conditions (in the reasonably near future) in a shelter environment.

If you are planning a long-term food storage program for children in this age group, you might wish to plan to obtain adult units. Children have tremendous protein and calorie needs as they grow older. The child that is 5 today may be a teenager before you find yourself accessing your long-term food supplies! However, if you find budget constraints are making you unsure what to order for your growing child, then please give us a call to assist you with your planning.

When purchasing these Basic 7-Month units you may also want to consider adding the following items as adjuncts for active children:

- Additional fruits
- Almonds
- Egg mix or powder
- Goat milk
- Additional vegetables
- Seaweeds
- Bonito Fish Flakes
- Chicken
- Seitan
- Tuna
- Turkey

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PROGRAM 1 BASIC 7-MONTH UNIT

PROGRAMS 2 & 3 COMPREHENSIVE 7-MONTH UNITS

	PROGRAM 1 BASIC 7-MONTH UNIT			PROGRAMS 2 & 3 COMPREHENSIVE 7-MONTH UNITS		
	#10 Cans (qnty.)	5-Gal. Buckets	Net Wt.	#10 Cans (qnty.)	5-Gal. Buckets	Net Wt.
GRAINS						
Barley, Pearled (RTR organic)	2		11.50 lbs.	2		11.50 lbs.
Buckwheat Groats	1		5.25	1		5.25
Corn, Yellow (organic)	1		5.25	1		5.25
Millet (organic)	4		24.00	4		24.00
Oats, Rolled	3		9.00	3		9.00
Pasta, Egg Noodles	1		2.00	1		2.00
Pasta, Elbow, Durum Wheat	1		3.50	1		3.50
Pasta, Spaghetti, Durum Wheat	1		4.00	1		4.00
Rice, Short Grain Brown		2	76.00		1	38.00
Rice, Medium Grain (unsprayed)					1	38.00
Rice, Basmati, White	1		5.50	1		5.50
Rice, Sweet Brown	1		6.00	1		6.00
Rye	1		5.00	1		5.00
Wheat, Hard Red		2	76.00		2	76.00
Wheat, Soft White (RTR organic)	1		5.75	1		5.75
LEGUMES						
Aduki Beans	1		5.75	1		5.75
Garbanzos (unsprayed)	1		5.50	1		5.50
Kidney Beans	1		5.50	1		5.50
Lentils (unsprayed)	2		11.50	2		11.50
Mung Beans	1		5.50	1		5.50
Pinto Beans	1		5.50	1		5.50
Soybeans, Yellow (organic)	1		5.25	1		5.25
Split Peas, Green	1		6.00	1		6.00
VEGETABLES						
Beans, Green	1		1.00	1		1.00
Broccoli				1		1.00
Cabbage, Chinese				1		.50
Cabbage, Green (RTR organic)	2		2.00	2		2.00
Carrots	1		2.20	1		2.20
Corn, Sweet				1		2.85
Peas, Garden Green				1		3.00
Potato Dices (RTR Organic)	1		2.50	2		5.00
Potato Granules**				1		6.00
Squash, Winter (unsprayed)	1		2.00	1		2.00
Sweet Potato Dices	1		2.70	1		2.70
Tomato Powder				1		4.00
NUTS & SEEDS						
Alfalfa Seeds/Sprouting	1		5.50	1		5.50
Almonds				1		4.00
Pumpkin Seeds	1		4.00	1		4.00
Sesame Seeds	1		4.50	1		4.50
Sunflower Seeds/Sprouting	1		4.00	1		4.00
FRUITS (low moisture)						
Apples (unsulphured)	1		1.25	1		1.25
Date Pieces (unsulphured)				1		3.50
Prunes (unsulphured)				1		3.20
Raisins (unsulphured)	1		4.00	1		4.00
SUPPLEMENTARY ITEMS						
Honey	1		5.00	1		5.00
Salt, non-iodized	2		18.00	2		18.00
Baking Powder (no aluminum)				1 #2.5 can		2.00
Baking Soda				1 #2.5 can		2.00
Cornstarch				3 #2.5 cans		3.00
Jensen's Seasoning				1 #2.5 can		1.00
Ginger Powder				1 #2.5 can		1.00
Miso	1		6.60	1		6.60
Oil, Sesame	1		5.50	3		16.50
Onion Powder				1 #2.5 can		1.00
Seaweed, Kelp Powder	1		5.00	1		5.00
Shoyu					1 32-oz. bottle	2.00
Yeast, Bakers	1 box		1.10	1	1 box	1.10

**These products may contain preservatives or additives.

NEW!

ECONOMY LONG-TERM UNIT

for price sensitive budgets

This program is intended to give you the most long-term food for the lowest possible price. Designed to be used on a 4-6 year basis per person, you can see that longer usage decreases the daily calories and protein yields. The Long-Term Economy Unit is a pragmatic addition to the 7-month comprehensive units.

Please note that while the program is packaged in bulk bags for cost efficiency, it would be prudent for you to repack the bags into sealed buckets or barrels to protect the food from insects, rodents, weevils and moisture. (An extra protective measure is to pack the foods in plastic bags and back-fill with dry ice.) Those grains that do not store well once dehulled are included in their original unhulled state for long-term viability. Grain dehulling equipment is required (see pg. 3 for details).

	Quantity Bulk Bags	Net Wt.
GRAINS		
Barley, Pearled (RTR organic)	2	100.00 lbs.
Corn, Yellow (organic)	1	50.00
Millet, unhulled* (organic)	8	400.00
Rice, Short Grain Paddy*	20	1,000.00
Wheat, Hard Red	14	840.00
LEGUMES		
Garbanzos (unsprayed)	1	50.00
Lentils (unsprayed)	5	250.00
Soybeans, Yellow (organic)	3	180.00
Split Peas, Green	2	100.00
NUTS & SEEDS		
Buckwheat Seeds/Sprouting	1	50.00
SUPPLEMENTARY ITEMS		
Salt, non-iodized	3	150.00
Oil, Sesame	7 (#10 cans)	38.50
Seaweed, Kelp Powder	1	30.00

*Unhulled grains are cleaned. Dehulling equipment is required.

TOTAL COST: $997.52 APPROX. SHIPPING WT. 3,038 LBS. CUBIC FT. 85

4-YR. DIETARY ANALYSIS:
DAILY CALORIES: 2,762
DAILY PROTEIN: 109.2 gr.

6-YR. DIETARY ANALYSIS:
DAILY CALORIES: 1,841
DAILY PROTEIN: 72.8 gr.

SUPPLEMENTAL VEGETABLE UNIT

This year's harvest produced an abundant yield, and has allowed us to give you a reduced price on a long-term vegetable unit. This program is a good addition to the Long-Term Economy Unit. For those who are purchasing grains, beans and seeds locally, the Supplemental Vegetable Unit is an important adjunct of quality dehydrated vegetables that are nitrogen vacuum packed and easy to ship.

	Quantity #10 Can	Net Wt.
Green Cabbage (RTR organic)	12	12.00 lbs.
Carrots	7	15.40
Potato Dices (RTR organic)	7	17.50
Sweet Potato Dices	5	13.50

TOTAL COST: ~~$208.63~~ $187.67!
APPROX. SHIPPING WT: 58.40 LBS.

4-YR. DIETARY ANALYSIS:
DAILY CALORIES: 70
DAILY PROTEIN: 2.3 gr.

6-YR. DIETARY ANALYSIS:
DAILY CALORIES: 47
DAILY PROTEIN: 1.5 gr.

7 Nutritionally Balanced Programs We Can Recommend With Confidence

To make your long-term food storage planning easier, our staff carefully researched and experimented with a variety of options to arrive at our recommended programs. Designed as comprehensive, nutritionally balanced diets for physically active adults in a high-stress environment, these programs meet and exceed the Recommended Daily Dietary Allowance of the National Academy of Sciences.

Be sure to note that the "comprehensive" programs offer, per day, as much as 50% more calories and substantially more protein than most programs available in today's market. The "basic" recommended programs were designed to keep the cost as low as possible, while ensuring adequate nutritional value to meet your minimum daily requirements in a shelter environment.

If you find that these programs don't suit your specific needs, then use them as a handy guide to product quantities and nutritional content as you build your item-by-item order on the enclosed order form.

Each program, as listed, is designed for one person.

DEFINITION OF TERMS

RTR organic: Food grown at the Royal Teton Ranch in accordance with Montana organic growing standards utilizing natural and biologically compounded fertilizers and natural pest controls. Raised by the loving hands and hearts of Keepers of the Flame!

Organic: Food grown in accordance with Section 26569.11 of the California Health & Safety Code, without the use of synthetic herbicides or pesticides.

Unsprayed: Food grown in soil on which synthetic fertilizers may have been used in the last 3 years, and which may retain some residue of previously sprayed herbicides or pesticides. The crop was not sprayed with synthetic herbicides or pesticides after germination during the growing season from which we received this food.

Call 1-800-245-54
for easy ordering

PROGRAM 1
BASIC UNIT
(con't)

PROTEINS		
Milk, Nonfat Dry	2	7.50 lbs.
Textured Vegetable Protein (TVP)	2	7.00

This unit used over a 7-month period would provide the following:
CALORIES 2450-2750 approx. per day
PROTEIN 100-119 approx. grams per day

COST $363.09 APPROX. SHIPPING WT. 421 LBS. CUBIC FT. 13.5

PROGRAM 2
COMPREHENSIVE DAIRY/NO MEAT
(con't)

PROTEINS		
Cheese Powder, Cheddar**	1	3.50 lbs.
Egg Powder, Instant	1	3.50
Egg Powder, Whole	1	3.25
Milk, Nonfat Dry	5	18.75
Tuna, wet-pack	32 6.5-oz. cans	13.12

**These products may contain preservatives or additives.

This unit used over a 7-month period would provide the following:
CALORIES 3180-3580 approx. per day
PROTEIN 122-142 approx. grams per day

COST $654.04 APPROX. SHIPPING WT. 534 LBS. CUBIC FT. 21.5

PROGRAM 3
COMPREHENSIVE MINIMAL DAIRY WITH MEAT
(con't)

PROTEINS		
Egg Powder, Whole	1	3.25 lbs.
Milk, Nonfat Dry	1	3.75
Soy Milk, powdered	1	3.75
Textured Vegetable Protein (TVP)	1	3.50
Beef, diced/freeze-dried	1	1.25
Chicken, diced/freeze-dried	1	1.25
Turkey, diced/freeze-dried	1	1.25
Tuna, wet-pack	32 6.5-oz. cans	13.12

This unit used over a 7-month period would provide the following:
CALORIES 3012-3412 approx. per day
PROTEIN 116-136 approx. grams per day

COST $699.10 APPROX. SHIPPING WT. 522 LBS. CUBIC FT. 21.5

PROGRAM 4 BASIC 2-YEAR UNIT

	#10 Cans (qnty.)	5-Gal. Buckets	Net Wt.
GRAINS			
Barley, Pearled (RTR organic)		1	37.00 lbs.
Corn, Yellow (organic)		1	32.00
Millet, unhulled* (organic)		4	120.00
Oats, unhulled*		6	132.00
Rice, Short Grain Paddy*		15	420.00
Rye		1	36.00
Wheat, Hard Red		8	304.00
LEGUMES			
Aduki Beans		1	40.00
Garbanzos (unsprayed)		1	38.00
Kidney Beans			
Lentils (unsprayed)		1	35.00
Mung Beans		1	37.00
Pinto Beans			
Soybeans, Yellow (organic)		1	35.00
Split Peas, Green	6		36.00
NUTS & SEEDS			
Alfalfa Seeds/Sprouting		1	40.00
Buckwheat Seeds/Sprouting		1	28.00
Sunflower Seeds/Sprouting		1	18.00
SUPPLEMENTARY ITEMS			
Honey	2		10.00
Salt, non-iodized		1	58.00
Miso	4		26.40
Oil, Sesame	7		38.50
Seaweed, Kelp Powder	2		10.00

*Unhulled grains are cleaned before packaging. Dehulling equipment is required.

This unit used over a 2-year period would provide the following:
CALORIES 2446-2850 approx. per day
PROTEIN 94-114 approx. grams per day

COST $991.35 APPROX. SHIPPING WT. 1,636 LBS. CUBIC FT. 60.0

PROGRAM 5 BASIC 7-YEAR UNIT

	#10 Cans (qnty.)	5-Gal. Buckets	Net Wt.
GRAINS			
Barley, Pearled (RTR organic)		4	148.00 lbs.
Corn, Yellow (organic)		2	64.00
Millet, unhulled* (organic)		16	480.00
Oats, unhulled*		19	418.00
Rice, Short Grain Paddy*		52	1,456.00
Rye		3	108.00
Wheat, Hard Red		28	1,064.00
LEGUMES			
Aduki Beans		2	80.00
Garbanzos (unsprayed)		2	76.00
Kidney Beans		1	34.00
Lentils (unsprayed)		5	175.00
Mung Beans		2	74.00
Pinto Beans		1	34.00
Soybeans, Yellow (organic)		4	140.00
Split Peas, Green	12		72.00
NUTS & SEEDS			
Alfalfa Seeds/Sprouting		2	80.00
Buckwheat Seeds/Sprouting		1	28.00
Sunflower Seeds/Sprouting	2	1	23.00
SUPPLEMENTARY ITEMS			
Honey	7		35.00
Salt, non-iodized		3	174.00
Miso	13		85.80
Oil, Sesame	24		132.00
Seaweed, Kelp Powder	7		35.00

*Unhulled grains are cleaned before packaging. Dehulling equipment is required.

This unit used over a 7-year period would provide the following:
CALORIES 2300-2705 approx. per day
PROTEIN 86-105 approx. grams per day

COST $3,124.50 APPROX. SHIPPING WT. 5,362 LBS. CUBIC FT. 195.0

PROGRAMS 6 & 7 COMPREHENSIVE 7-YEAR UNITS

These programs mirror Programs 2 and 3 (Comprehensive 7-Month Units) with the quantities increased for a 7-year supply. Due to the requirements of long-term storage, the majority of the rice, oats and millet are unhulled requiring the use of grain dehulling equipment.

PROGRAM 6 *DAIRY WITH NO MEAT*

COST $7,286.67 APPROX. SHIPPING WT. 6,878 LBS. CUBIC FT. 293.0

DAILY CALORIES 3070-3475 DAILY PROTEIN 124-144 gr.

PROGRAM 7 · *MINIMAL DAIRY WITH MEAT*

COST $8,158.86 APPROX. SHIPPING WT. 6,782 LBS. CUBIC FT. 293.0

DAILY CALORIES 2950-3345 DAILY PROTEIN 120-140 gr.

WHY EVERY KEEPER OF THE FLAME SHOULD HAVE A FAMILY GARDEN SEED PROGRAM

This is a tremendous program put together by Royal Teton Ranch staff after years of research. A practical insurance policy against uncertain times, the family garden seed program allows you to grow enough food for four people for up to one year! (with irrigation and careful gardening techniques).

The program consists of approximately 70 open-pollinated varieties and one hybrid variety of vegetables, legumes, grains and seeds currently in use at the Royal Teton Ranch. Varieties have been selected after several years of testing for product texture, flavor, culinary quality, processing and storage characteristics, and adaptability to northern climates. Whenever possible, non-treated seed is used.

The 2 1/2 cases of #10 cans are nitrogen-packed to help maintain a high rate of germination after long-term storage. Also included is a supply of seed starter inoculant, basic planting instructions for each crop, a list of sources and references for gardening, and seed saving instructions.

VEGETABLES

Beans, Romano - Roma II	1/4 lb.
Beans, Snap - Provider	1 lb.
Beans, Snap - Purple Queen	1 lb.
Beans, Wax - Keygold	3/4 lb.
Beets - Ruby Queen	1/4 oz.
Bok Choy - Prize Choy	1/4 oz.
Broccoli - Calabrese	1/4 oz.
Broccoli - Waltham 29	1/4 oz.
Brussels Sprouts - Green Pearl	1/8 oz.
Burdock - Takinogawa Long	1/4 oz.
Cabbage, Chinese - Wong Bok	1/4 oz.
Cabbage, Green - Glory of Enkhuizen	1/4 oz.
Cabbage, Red - Red Acre	1/8 oz.
Cabbage, Savoy - Chieftain	1/8 oz.
Carrots - Imperator 58	1/4 oz.
Carrots - Touchon	1/4 oz.
Cauliflower - Snowball T-3	1/8 oz.
Celery - Improved 52-70 R	1/8 oz.
Chard - Fordhook Giant	1/4 oz.
Chard - Rhubarb	1/4 oz.
Corn, Sweet - Alta Gold	1/4 lb.
Corn, Sweet - Honey Cream	1/4 lb.
Cucumbers, Pickling - National	1/4 oz.
Cucumbers, Slicing - Early Fortune	1/4 oz.
Daikon - Minowase	1/4 oz.
Kale - Konserva	1/4 oz.
Kohlrabi - Purple Vienna	1/8 oz.
Kohlrabi - White Vienna	1/8 oz.
Lettuce, Bibb - Buttercrunch	1/8 oz.
Lettuce, Looseleaf - Saladbowl	1/8 oz.
Lettuce, Redleaf - Prizehead	1/8 oz.
Lettuce, Romaine - Paris White	1/8 oz.
Parsley - Italian Green Plain	1/8 oz.
Parsnips - Harris Model	1/4 oz.
Peas, Edible Pod - Sugar Ann	1/4 lb.
Peas, Garden - Multistar	1 lb.
Peas, Snow - Mammoth Melting Sugar	1/4 lb.
Potato Seed - Homestead*	40 seeds
Radish, Summer - Champion	1/2 oz.
Radish, Winter - China Rose	1/4 oz.
Rutabagas - American Purple Top	1/4 oz.
Spinach - Long Standing Bloomsdale	1/4 oz.
Squash, Summer - Early Prolific Straightneck	1/4 oz.
Squash, Summer - Early White Bush	1/4 oz.
Squash, Summer - Grey Zucchini	1/4 oz.
Squash, Winter - Burgess Buttercup	1/2 lb.
Tomatoes - Scotia	1/8 oz.
Tomatoes, Paste - Nova	1/8 oz.
Turnips - Purple Top White Globe	1/4 oz.
*hybrid seed TOTAL WEIGHT	**6 lbs.**

GRAINS & SEEDS

Barley - Gallatin	2 lbs.
Buckwheat - Mancan	1-1/2 lbs.
Corn, Dry - Mandan Bride	1/4 lb.
Corn, Dry - Nothestine Dent	3/4 lb.
Corn, Pop - Japanese White Hull-less	1/2 lb.
Millet - Proso	3-1/2 lbs.
Oats - Monida	5-1/2 lbs.
Quinoa - #407	1/4 lb.
Rye - Common	5-1/2 lbs.
Sunflowers, Confection - Dahlgren	1/2 lb.
Wheat, Spring, Durum - Laker	5-1/2 lbs.
Wheat, Spring, Hard Red - WestBred 926	10 lbs.
Wheat, Spring, Soft White - Owens	5-1/2 lbs.
Wheat, Winter, Hard Red - Redwin	5 lbs.
TOTAL WEIGHT	**46 lbs. 4 oz.**

LEGUMES

Beans, Adzuki - Express	1-1/2 lbs.
Beans, Baking - Swedish Brown	1/2 lb.
Beans, Fava - Broad Windsor	1/4 lb.
Beans, Kidney - Red Kloud	1/2 lb.
Beans, Pinto - UI 111	1-1/2 lbs.
Lentils - Chilean	1-1/2 lbs.
Peas, Dry - Alaska	2-1/2 lbs.
Soybeans - Maple Amber	3 lbs.
Seed Inoculant	1/2 lb.
TOTAL WEIGHT	**11 lbs. 12 oz.**

TOTAL COST $165.00 APPROX. SHIPPING WT. 81 LBS.

Note: Occasional substitutions of varieties may be necessary.

This is a package you'll find hard to duplicate!

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3.3 Individuals - Written Comments

RECEIVED

JAN 11 1993

MDHES
Environmental Sciences Div.

P.O. Box 20
Emigrant, MT 59027
January 8, 1993

Steven L. Pilcher, Administrator
Environmental Services Division
Dept. of Health and Environmental Sciences
Room A-107, Cogswell Building
Helena, MT 59620

Dear Mr. Pilcher:

After purchasing our ranch property in 1992, we entered into an agreement with the Story ranch to restrict development on our combined properties, some eighty acres, for a period of ninety-nine years.

We agreed to this contract because of our sincere belief that the ecology of the area is so fragile that not to do so would risk the health and welfare of not only ourselves but our neighbors as well. In signing the agreement which is on file with the county, we in fact put our money where our mouth is.

As a former General Superintendent of the Chicago Park District, I have been able to observe very closely the environmental problems that have escalated exponentially over the years.

Having been responsible for many environmental impact studies over the years, I am sympathetic to the fact that they represent at best an inexact science. So often in retrospect, we see how unintentionally superficial they can be.

I find myself presently facing an example of this. My property is across the road from the proposed sewage treatment facility of the Golden Age Phase II project in Emigrant. We are planning a caretakers house and guest resident that would be no more than 150 to 200 feet from the sewage project. Between these dwelling and this project is the north branch of Fridley Creek which is totally on my side of the fence in this area.

The soil throughout this property and that of the sewer project is extremely porous and will present a great danger to my existing and future wells.

In reviewing your impact study, I find a very real concern for the wells of the Golden Age Village. Your report concludes that as they are some 1000 to 2000 feet from the project and any adverse impact would be minimal. I don't find, however, anything in the study that relates to the property across the road, namely mine, that is no more than 150 feet away, which again includes my water rights on Fridley Creek.

I firmly object to this hastily proposed sewer facility that in my experience unquestionably poses a serious threat to the health and welfare of my family, employees and my guests.

Respectfully submitted,

Thomas Barry

Thomas Barry

RECEIVED

JAN 20 1993

MDHES
Environmental Sciences Div.

January 16, 1993

Mr. Tom Ellerhoff
Montana Dept. of Health & Environmental Sciences
P.O. Box 200901
Helena, MT 59620-0901

Dear Mr. Ellerhoff,

I have read the Draft Supplement Environmental Impact Statement on projects proposed by Church Universal and Triumphant. I think the study is complete and has been handled fairly and responsibly by the Department.

I recommend that the Church be issued its permits to proceed with the projects without further delay. Most of the proposed mitigations are fair and reflect a concern for the environment and respect for a landowner's right to use his property. Any further study would be giving in to stall tactics by a handful of individuals who have formed environmental groups and will never be satisfied as long as the Church is allowed to proceed with any project.

The following are comments on several of the proposed actions and the mitigation measures.

Reinstallation of the fuel tanks at Mol Heron

I support the approval with mitigation plan Alternative #3. The design of the installation of 8 double walled steel tanks with tertiary containment and leak detection systems is excellent and meets the highest standards for installations in environmentally sensitive areas.

An emergency plan tailored to the site would help to insure a prompt and orderly response to a fuel related accident in the future regardless of its nature.

A great deal of caution will be needed during the process of delivery of the fuel.

Sedimentation catchment techniques (straw bales) as described in the DEIS will be effective in reducing the velocity of runoff and allowing the mud to settle out of the water. Considering the distance from the creek and the fact that the grass cover has been restored to the site it is unlikely that any sediment resulting from the tank excavations could reach the creek.

The use of straw bales has come under fire by critics of the SEIS in Gardiner. I heard the suggestion that filter fabric and settling ponds should be used. I don't see how it would be practical to secure and support filter fabric in a way that would catch sediment unless you draped it over something like hay bales! I do not like filter fabric for this application because it would generate tons of non-biodegradable solid waste which would need to be trucked away to a landfill. Settling ponds would only create an additional disturbance closer to the creek than the proposed tank installations.

Wildlife Mitigations Page 4 - 10

Reasonable mitigation measures should continue as stated under the Mitigation Plan Agreement in Appendix B of the F.E.I.S.

The Multiple Species Conservation Plan is a very lengthy and expensive project which should remain as a recommendation to the Church where the Church would have the option to pursue this process before engaging in significant development beyond the scope of the current SEIS. To enter into this type of a study and agreement with government agencies a landowner could give up a great deal of his property value with the only compensation being a somewhat vague promise from regulatory agencies that certain restrictions on land use will be sufficient based on current information. Considering the aggressiveness and non compromising ideology of local environmental groups, I doubt that this process would be successful in developing a consensus. No one else in the area is being asked to develop a MSCS when they want to build.

Botanical Resources

Preparing a map of all the plant communities on the Ranch to compliment a multiple species conservation plan should be left as a suggestion which the Church can take up at their option over time. If the Church only owned the land which will be disturbed by the proposed developments, the acreage would not be great enough to justify such an extensive study.

The major development proposed is Spring Creek, and most of the construction will occur on a former hayfield which does not represent natural grasslands. This field was selected for the development partially due to an inadequate supply of irrigation water and the poor agricultural results experienced by the former owners.

The specific mitigation measures listed on page 4-47 and 4-48, Items A through G are excellent with the exception of Item C. Somehow it seems impracti cal to hand gather seeds for anything larger than a postage stamp plot. If the soil is replaced in the same season many of the natural plants will regenerate on their own. Mulching with natural grass hay after it has gone to seed might be another possibility.

I know from personal experience that the Church already applies the reclamation principle listed as Items A, B, and D through G in their projects.

Air Quality

Control of fugitive dust along roadways has already been discussed in Appendix B of the original EIS under the mitigation measures. The Church has taken responsibility for treating the roads with dust palliative on a consistent basis since 1987.

I agree with alternative 3 that dust from construction sites can be controlled by applying water. I expect that the Church would want to control dust in any case during construction to protect personnel, vehicles and the buildings under construction.

Roads and Bridges

The Church has complied with the mitigation agreement included in the FEIS by cooperating with Park County in applying dust control agents to county roads. The treatments occur once a year on the Mol Heron Road, twice per year on the road between the Corwin Springs Bridge and Ranch Office, and three to four times per year on the road between the Corwin Springs Bridge and Ranch Headquarters. The Church provides a grader, water truck, roller, distributor truck with manpower and the county provides one man on a grader when the roads are treated. The effort by the Church more than offsets the wear and tear generated by the additional traffic and the general public benefits by having much better roads to drive upon.

The Church has gone a step further by switching to calcium lignosulfonate for treatments, which is more expensive, and harder to work with. The benefit is realized in that it is longer lasting and environmentally safer than Magnesium Chloride.

I do not think that it is fair to require that the Church pay for the paving of the roads to the Spring Creek site or the replacement of the Corwin Springs Bridge. Many individuals who are not associated with the Church benefit from the use of these public facilities. The Church pays $151,012 in taxes per year and is the fourth largest taxpayer in the county. (page 8-82)

The Corwin Springs Bridge, constructed in 1908 should have been replaced many years ago, at public expense, but will easily serve for the next five to ten years until funding becomes available. I recommend that the Corwin Springs Bridge be given a lower number in its adequacy rating by the MT. DOT in order to place it higher on the priority list for replacement.

Personal Observations Re: Sedimentation in Mol Heron Creek

At the public hearing in Gardiner on January 7, 1993, I heard Lil Erikson of the Greater Yellowstone Coalition say that Mol Heron Creek runs muddier than Cinnabar Creek during a rainstorm. She attributed this difference to the Church's disturbance of the soils at the fallout shelter site and development in the drainage.

I have also observed turbidity in Mol Heron and Cinnabar Creeks and I have concluded that it depends mostly upon the intensity and location of the rainstorm and that either creek could be muddier.

On page 3-29 of the DSEIS it states that "as a result of the fires in Yellowstone National Park in 1988, approximately .8 miles squared of area was burned in the upper Mol Heron Watershed. (B. Buchers Pers., Comm. 10.9.92). It is possible that the subsequent erosion in the upper watershed contributes to higher sedimentation downstream." During 1989 and 1990, I observed that Mol Heron Creek ran practically black every time it rained heavily over the burned out area in the park. On one occasion it was dry at the shelter site and the creek was very muddy due to a rainstorm in the park. The effect of the burning of over 500 acres in the upper Mol Heron watershed is drastically understated in the DSEIS.

Cinnabar Creek can get extremely muddy. After a rainstorm during the summer of 1991, I assisted the County in clearing the Cinnabar Creek Road of mudslides. This effort took 3 hours with a CAT 966E (5 cy) Loader. The Mol Heron Road above the Y was free of mudslides and the Mol Heron creek was running much cleaner than Cinnabar creek in this instance.

While working at the shelter site during 1989 and 1990, I observed a number of rainstorms. Most of the runoff was intercepted by the lines of straw bales, which reduced its velocity allowing sediment to drop out and the water to disperse where it would soak into the ground.

Natural vegetation was maintained as a protective filter 50' - 100' wide on the west side of the creek below the shelter excavations in order to protect the creek. The only exception is where the road crosses the creek to the conference site meadow and this area was well fortified with straw bales to reduce sedimentation to the creek during the construction project. The entire shelter site, area near the bridge, and the meadow have been reclaimed with a healthy stand of grass so the danger of any further sedimentation to the creek has been eliminated.

Truck routes through Gardiner

On page 3-106 3.4.11.4 Roads and Traffic, Existing Conditions a.1

The issue is discussed regarding truck traffic over 11 tons which must travel through Gardiner to reach the Church property. In order to avoid the Gardiner school parking lot the Church has instructed all of their drivers of heavy trucks to take highway 89 to Front Street, to turn right and follow the street through the tight S bends by the Roosevelt Arch until they connect with the County road. At the East Gate receptionist desk, the Church's construction department keeps maps of Gardiner, which state these instructions and are distributed to vendors whenever deliveries are anticipated.

This effort has helped to alleviate the problem, but the Church cannot be expected to control the routes selected by all the private truckers making deliveries to the Church. I suggest that a "Truck Route" sign be posted at the entrance to Stone Street. To solve the problem of trucks cutting across the school parking lot, a sign is needed directing any wayward truck to the left and around the buildings, which houses the library and police station.

There is one exception to this proposal. We have found that it is impossible to take a 14' wide mobile home through the S bends at the north end of Front Street by the Roosevelt Arch. Wide loads such as these can only be taken through Gardiner using Stone Street, making a left turn past the library. In this scenario it is still possible to avoid the school parking lot which is one of the major sources of concern.

Respectfully submitted,

Robert E. Beese

Robert E. Beese
P.O. Box 945
Gardiner, Montana 59030

cc: Edward L. Francis

Box 351, Gardiner MT 59030
15 January, 1993

RECEIVED
JAN 19 1993
MDHES
Environmental Sciences Div.

Tom Ellerhoff
Department of Health & Environmental Sciences
Cogswell Building, Capitol Station
Helena, MT 59620

Dear Mr. Ellerhoff:

Re: DSEIS for the Church Universal and Triumphant

For some unknown reason, this group does not seem to be required to obey the same laws as the rest of us Montana residents. They have been allowed to mock and (evidently) intimidate our state agencies that should be upholding and enforcing the exhisting codes and laws. Why? They seem to be deliberatly breaking the law; ie. pumping the LaDuke geothermal well in violation of the signed contract of mitigation; the illegal weapons buying several years ago, dumping their honey wagon on the hillside, etc. etc. etc. They have never yet told us the truth about their intentions, or their activities. They have made fools of us and of our officials.

The DSEIS identified and admitted some of the impacts that this group has on the land, water, and social aspects of our area, but they were not evaluated, or solutions offered. You must protect our wonderful state! Deliberately, I have not addressed the huge bomb shelter problem, nor the fuel spill, nor many other concerns that I have, assuming that you will receive many other letters concerning those things. My only request is that you look much deeper into all of the problems, and offer satisfactory solutions.

There has been a MAJOR impact on traffic. I have been a resident of Gardiner for 39 years, and have driven highway 89 to Livingston many hundreds of times. Since CUT moved into the area, of course traffic has increased greatly. That in itself wouldn't be too bad IF they kept their attention on their driving, but that isn't necessarily the case. Many, many times I have observed the car ahead of me driving erractically, weaving across the center line, slowing down, then speeding up. Invariably, if I find a place to pass them, I can see that they are wearing earphones and doing their decreeing. The decreeing is NOT what I am objecting to, but the erractic and dangerous driving is. Three times in **one** trip to Livingston cars entered the highway from sideroads without stopping or looking - two just north of Emmigrant, and one at the next sideroad after that. Also many of their cars have only one headlight. Now you may smile, and think that this is a trivial matter, but, if you have ever driven between Livingston and Gardiner at night, you probably know that we have a large number of deer, and sometimes elk, that cross the highway. With a line of traffic coming at you at night, and several of them having only one headlight, trying to dodge the deer is a fair challange. Why do so many of them have only one headlight, you ask? Guru Ma has told them not to buy cars with modern electronic systems (something to do with the effect of a nuculear attack knocking out the electronics), so many of them drive old beaters. Why does the EIS not address these aspects of this impact?

On page 3 - 98 of the DSEIS, bottom of paragraph 2, it says the population in Gardiner, "increased from 209 in 1980 to 511 in 1990". Where did these census figures come from? I do have personal experience in this, as I was the census enumerator for Gardiner and the surrounding area in 1970 and again in 1980, and a friend was the enumerator in 1990. In the town of Gardiner, both sides of the river, up to the "Z" hill, but excluding inside the boundary of Yellowstone Park I counted approximately 425 people in 1970. 10 years later there were approximately 650 people in the same geographical area. My friend tells me that in 1990, in the same area, were living approximately 800 persons. The erroneous figures given in the DSEIS for this one subject that I know about, makes me question all of the other "facts and numbers" given in other sections of it.

The intention of CUT to expand and build a new headquarters with schools, chapels, dining hall, office buildings, housing, laundry facilities, university, a publishing facility, gym/swimming pool complex, visitor facilities and fire department at Spring Creek at the base of Devil's Slide makes me heartsick. 2,500 persons using that area, where at the present time there are pronghorn antelope, elk, and bighorn sheep in their natural setting is just unthinkable! This EIS doesn't come close to acknowledging the impact, and gives no answers at all; only acceptance of CUT's plans.

Please, please do right by Montana, and by Yellowstone National Park, and don't put the citizens of Montana in the position of cursing your name forever, as we curse the name of Malcomb Forbes.

Sincerely, and desperately,

Loretta Chapman

Loretta Chapman
Box 351
Gardiner MT 59030

RECEIVED
JAN 20 1993
MDHES
Environmental Sciences Div.

Royal Teton Ranch
Box A, Corwin Springs, Montana 59021 406 848-7381

January 10, 1993

Mr. Thomas M. Ellerhoff
Assistant Administrator
Environmental Sciences Division
MONTANA DEPARTMENT OF HEALTH AND
ENVIRONMENTAL SCIENCES
Cogswell Building Helena, Montana 59620

Re: **Rebuttal Of Comments Made By Ellen Woodbury on supplemental EIS during public meeting in Livingston on Jan 6, 1993.**

Dear Tom,

During Ellen Woodbury's comments regarding the Supplement EIS she mentioned that the Church's LPG installation had not been inspected. She referenced a conversation with Rich Levandowski wherein he told her that the church had not contacted the State Fire Marshal's office regarding the installation.

I would like to correct Ms. Woodbury's and Mr. Levandowski's statements. You will find attached a copy of a letter written on Dec. 15, 1989 to then State Fire Marshal, Ray Blem, Jr., by Jack Sousa, Deputy Fire Marshal. On Dec 8, 1989 at the Church's invitation, Jack Sousa and Bob Fry (then Park County DES Co-ordinator were escorted by me and our Civil Engineer, William Smith, throughout our fallout shelter complex specifically to inspect and comment on our propane installation.

At that time Mr. Sousa stated he was satisfied with the installation and precautions taken and made no recommendations to change the design of installation or provide additional safety measures.

It is unfortunate that Mr. Levandowski did not have this information at hand when Ms. Woodbury called. I trust that the attached correspondence will set the record straight.

Sincerely,

James E. Cherry
Royal Teton Ranch
Fire Chief

PARK COUNTY COMMISSIONERS

414 E. Callender
Livingston, Montana 59047
406-222-6120

RECEIVED

JAN 12 1993

MDHES
Environmental Sciences Div.

January 11, 1993

Mr. Tom Ellerhoff
DHES
Capitol Station
Cogswell Building
Helena, Mt 59620-0901

Re: CUT DSEIS Comments:

In the short time allowed at the 6 January 1993 hearing I had some personal views and comments that I didn't get expressed so I now will make written comment.

As a native Park County resident (60 years) I have seen a lot of changes to Park County. As a Park County Commissioner the last 8 years I have been involved in a highly controversial change; namely, the Church Universal and Triumphant migration to Park County extending from Livingston south to Gardiner.

Knowing how things were years ago, what we have now and where we are headed, I am appalled and frustrated with State of Montana's views and actions on the Church Universal and Triumphant developments in Park County. I am not against new businesses, industry or development. Those are things which keep a community alive and well. I do, however, believe and insist that these expansions of new businesses and developments be reviewed, permitted and monitored in order to have a orderly, environmentally safe existence in our community. What has happened in the last ten years concerning the CUT has been anything but that. A lot of the problems can be attributed to local resentment of land use law changes, but the State of Montana in my opinion and observation has neglected to do its part. The many requests for State of Montana help during the past 5 or 6 years seems to have been passed off by different departments of the State as if Park County was `a whining child and if we wait awhile things will take care of themselves'. Well, that is not happening and things are getting worse. I like to make decisions based on the long term effect to Park County and to the taxpayers. When reading the CUT DSEIS, all the concerns seem to be addressing problems of less than a year. I disagree with this. I think that we should look at if for long term effect. The figures and facts presented by the CUT sporadically throughout the EIS alone don't seem like much, but when you take the cumulative total, surprisingly you suddenly have a monster of a problem before you.

Assuming that: the Spring Creek project was developed, the Summit University is established, a retreat conference is under way in the Corwin Springs - Mol Heron area, we could very easily have 7 - 8,000 people in the area according to the figures submitted by CUT in the EIS. And, this is without expansion of the church!! These figures of possible people in the area would be 5 times more than the size of Gardiner, equal to the city of Livingston. What effect would this have on the water, garbage, sewer infiltration, roads and infrastructure to the county? The same possibility can happen at Glastonbury North and South using the figures provided by Ed Francis and plugging them into what actually is happening in the area. Another small city would be born on a unreviewed development which will require some of the same services again. Roads, water, sewage, schools, local infrastructure, etc. The idea that whole communities the size of small towns and cities can spring up unreviewed is very appalling to me. If we are going to allow this sort of thing to go unchecked then we don't need the Mt. DHES. The State of Montana needs to look at this on a long term basis instead of sloughing it off to Park County on a piecemeal basis on the theory that "everything is private and not public so Park County can take care of it". There is room for expansion and growth in Park county but I feel that it should be in a manner which is orderly and environmentally safe, not the way it has been happening on property owned by CUT.

I am not saying that they should be treated any different than anyone else but who else has projects of their magnitude that go unreviewed??

Every little concession made by the State to the CUT organization gets carried to extreme proportions and beyond. We (Park County) are constantly being called on to check out new activity by or on the CUT property. Some of it is legitimate, some is in a gray area and some is a down and out violation of present code and restrictions. When confronted, the excuse is "we didn't know".

I think it is time to put an end to all of this double talk and force the CUT to come out with concrete plans and figures and intent based on a 40 year plan. It should come under full review of the State and with Park County where applicable. As for everything being Private vs Public, a little common sense should show that when dealing with these huge numbers and areas, it cannot be private. Cumulative totals, land area and long term effect seem to have escaped the State of Montana's watchful eye. As to the statement that "the Church's growth is virtually unlimited", I disagree. The growth is limited to what is permitted by prudent, legal review. A "do as you please attitude" doesn't get it.

Respectfully Submitted,

Carlo Ci

Carlo Cieri
County Commissioner
CC/mc
cc: file

11

RECEIVED

JAN 04 199~~2~~3

MDHES
Environmental Sciences Div.

2626- Vivian Street
Lakewood, Colorado 80215
January 1, 1993

Steven L. Pilcher, Administrator
Environmental Sciences Division
Department of Health and Environmental Sciences
P.O. Box 200901
Helena, Montana 59620-0901

Dear Mr. Pilcher,

Although I have been employed by the U. S. Geological Survey for the past 40 years as a research geochemist, I am writing this letter as a private citizen commenting upon the Draft Supplement Environmental Impact Statement, Church Universal and Triumphant, Park County, November, 1992.

My major comment concerns the statements of Sorey (1991) relating to (1) the present hydrologic connections between Mammoth Hot Springs and Corwin Springs KGRA (page 3-55), and (2) his statement (p. 4-40) regarding the lack of adverse effects to the thermal features of Yellowstone by continual production of thermal water from the CUT well at rates near 400 gpm.

I take issue with his conclusions. In testimony before the House Subcommittee on Mining and Natural Resources of the Committee on Interior and Insular Affairs (October 31, 1991) and the Senate Subcommittee on Public Lands, National Parks and Forests of the Committee on Energy and Natural Resources (February 25, 1992) I supported my position that there is no proof to validate Sorey's statements. I am attaching a copy of my testimony before the Senate subcommittee.

In view of the serious professional disagreement on these issues, I request that a statement be inserted in the final EIS document that addresses these points of disagreement. I realize that these points are not the major thrust of the EIS, but believe that the record on these important issues should be corrected because of the probability of future litigation.

A minor point-(p. 3-55, line 6)- although the drilling log for the Miller Well indicates a test production of 25 gpm, the well has been pumped, for research purposes, at 1.5 gpm for a number of years.

Sincerely,

Irving Friedman

Irving Friedman

508 N. 3rd Avenue
Bozeman, MT 59715

RECEIVED
JAN 19 1993
MDHES
Environmental Sciences Div.

17 January 1993

Montana Department of Health
and Environmental Sciences
P.O. Box 200901
Cogswell Building
Helena, MT 59620-0901

Dear MDHES representatives:

I would like make some comments related to the Draft Supplemental EIS for Church Universal and Triumphant developments.

During various portions of 1984, 1986, 1987, and 1988, I was contracted by a landowner group called the Northern Yellowstone Rim Alliance (NYRA) to study and document wildlife activity on public and private lands outside of the northwestern boundary of Yellowstone National Park (Mol Heron drainage, Cinnabar Basin, and Tom Miner Basin). Members of the NYRA during those years included: Church Universal and Triumphant, represented by Ed Francis and Timothy Connor; Leonard and Sandy Sargent; Bruce and Connie Malcolm; and the B-Bar Ranch, represented by Mary Ann Mott, Herman Warsh, Wes Henthorne, and Dan Pittman.

My findings were presented to these group members in the form of seven written reports: "An Assessment of Critical Wildlife Resources in the Northern Yellowstone Rim Area" (1985); "Northern Yellowstone Rim Wildlife Research - Spring and Summer 1986" (1986); "Northern Yellowstone Rim Wildlife Research - Fall 1986" (1986); "Northern Yellowstone Rim Wildlife Research - Spring 1987" (1987); "Northern Yellowstone Rim Wildlife Research - Fall 1987" (1988); "Northern Yellowstone Rim Wildlife Research - Fall 1988" (1989); "Northern Yellowstone Rim Wildlife Research -- 1984-1988 Summary Report" (1989).

During mid-1992, I was contacted by an employee of GeoResearch, Inc. regarding my work in the Northern Yellowstone Rim Area. I described the nature of my work and findings, and indicated that the above listed reports had been written and distributed to all NYRA members. It was my understanding that those reports would be acquired from CUT representatives, and that their relevant contents would be incorporated into the Draft Supplemental EIS. Consequently, upon reviewing the DSEIS, I was surprised to see no mention of my reports or their findings.

I feel that some of the information contained in my reports is extremely pertinent to issues of further development on RTR-South portions of CUT property, and that the information would be helpful in developing a more complete biological foundation from which to make decisions related to CUT development proposals, mitigation measures, and a possible habitat conservation plan. The reports document seasonal distributions of elk, moose, and bighorn sheep; locations and details of known grizzly bear activity; evaluations of potential peregrine nesting habitat; and locatins of bald eagles, on National Forest and private lands in the Mol Heron drainage and portions of the Yellowstone Valley around RTR-South. I strongly urge you to acquire my reports from CUT, and to consider their contents as you proceed with the decision-making process.

Personally, I am most concerned about negative impacts of CUT development to wildlife and wildlife habitat in the Mol Heron drainage and along the divide between Mol Heron Creek and the Yellowstone Valley. I have spent considerable time studying habitat and wildlife use patterns there, and have seen the value of these areas to grizzly bears, elk, bighorn sheep and eagles. I believe that cumulative effects of CUT development will be detrimental to all of these species in the long term. For these reasons, I oppose development in the Mol Heron drainage and around the Spring Creek Headquarters area. Relative to both the Mol Heron Shelter Site and the Spring Creek Headquarters Site, I support Alternative 1: denial. I support total dismantling and removal of the shelter facility, and feel that it is appropriate to consider alternative locations for both the shelter facility and the ranch headquarters. Only through relocation of these major disturbances can we hope to protect and maintain the valuable wildlife resources of this area.

Thank you for considering these comments.

Sincerely,

Steven Gehman
Wildlife Biologist

F. 1

RECEIVED
JAN 19 1993
MDHES
Environmental Sciences Div.

January 11, 1993

Mr. Steven L. Pilcher
Environmental Sciences Division
Department of Health and Environmental Sciences
P.O. Box 200901
Helena, MT 59620-0901

Dear Mr. Pilcher,

I am writing to you to comment on the Church Universal and Triumphant DSEIS. Thank you for sending me a copy. I found it to be fair and professional and I would like to commend you, Geo-Research, and Bio Tech on a job well done. My purpose in writing is to offer some additional information and to comment on some of the criticisms of the DSEIS I heard at the Gardiner meeting.

My first comment is regarding sediment in Mol Heron Creek. When I read the discussion of Water Resources as affected by Mol Heron Shelter Site (section 3.3.3.5) on page 3-40, I realized that I may know more about sediment in Mol Heron Creek than anyone cited in the DSEIS. I irrigate the Trestle fields and I have done so since 1984. Each summer I divert the majority of the creek water into the irrigation ditches, always letting some go by so as not to de-water the creek. Every year I see an accumulation of silt in the ditches. In 1989, the year after the fires, there was an unusual amount of silt, mixed with burned pine cones and pine needles. In 1990, 1991 and 1992 I did not see an unusual amount of silting, despite the heavy rains of '92.

In Gardiner, Lill Erickson, an acquaintance of mine, gave her testimony that the shelter site and the road up the Mol Heron drainage have seen and continue to be a greater source of creek sediment than the 1988 fires. This is not consistent with my observations which are based on 9 years of experience and daily observations. Her intention was to show that straw bales are not adequate for sediment control. I think they are, based on what I have seen.

Another criticism of the DSEIS was that the Spring Creek site would deprive wildlife of winter range, "possibly meaning the difference between life and death". I think this is an unfounded exaggeration. Since 1984 I have seen wildlife populations increase on the ranch and this is documented in the DSEIS. Furthermore, I have seen that our farming practices produce more food for the wildlife. They have increased in numbers despite more traffic and more developments at East Gate and Ranch Headquarters. I see no reason to believe that the deer, elk, antelope, bighorn sheep and other wildlife will not continue to thrive here, with the Spring Creek site built as planned.

One minor change I would ask you to make is this: substitue the words "straw bales" for "hay bales". Straw bales should work just as well to control sediment and hay bales are much more valuable as feed.

I would also point out that there seems to be an error on page 3-40 in the statement "the burned area consitutes less than 2% of the total drainage of Mol Heron Creek". The preceding statements on that page would indicate that over 4% burned. (0.8 square miles burned divided by 18.1 square miles of drainage = .044 = 4.4%)

Thank you for your efforts in producing this document, for your fair treatment of my church, and for this opportunity to comment.

Sincerely yours,
Frederick A. Peck
Frederick S. Peck

FSP:pba

RECEIVED

JAN 19 1993

MDHES
Environmental Sciences Div.

Barbara Jane Pettit, Ph.D.
P.O. Box 5000
Gardiner, Montana 59030-5000

Steven L. Pilcher, Administrator
Environmental Sciences Division
Department of Health and Environmental Sciences
P.O. Box 200901
Helena, Montana 59620-0901

Dear Mr. Pilcher,

I have read your draft supplement environmental impact statement on projects proposed by the Church Universal and Triumphant, and I must congratulate you, your department and your consultant, GeoResearch, for a credible, scholarly, and wholly professional piece of work. And, in spite of the late start, you got it done on time!

Certainly you must have been aware of the opposition you would receive from "environmentalists" and neighbors who oppose C.U.T. development, but in spite of that, you made some very courageous assumptions. The most courageous being that "The Church will continue to grow". Opponents of development will never be satisfied with less than "The Church will go away," and they hope that you and your department will be the instrument of that action. They surely do not want to hear, as you stated many times in the document, that "The Church's growth potential is virtually unlimited" because of the lack of a comprehensive Master Plan in Park County.

If there could be a criticism of your document, I feel it is a lack of integration of the whole. Perhaps this is not even possible from a position outside the Church, but in its absence, the work seems fragmented. There are actually reasons for things that are happening within the organization. And even though Edward Francis is courageous enough to stand up and admit that some very important decisions are made on the basis of divine inspiration, many things are done in a logical fashion or as a logical result of these decisions.

For example, the request for the Spring Creek Headquarters expansion occurs at a low point in Church employment, as seen from the payroll records. The data makes it look like we are expecting an influx of new employees. Naturally, we would not mind having additional new staff members to help, but what is really happening is that we have a core of employees who are willing to stay with the Church, become established Montanans, and raise their families here.

When I became a Church employee, nine years ago in California, one of the nine members of my department was married. Now, in the same department, five out of seven are married. This change is reflected in the other departments as well. The basic nature of the population of employees has, of course, important ramifications on growth and helps to explain some of what is seen here. To some extent, the delay in development at Spring Creek was a blessing because any planning we did while we were still in California would be obsolete by now, and we would have to be doing extensive renovation to meet the needs of the changed population.

The copy of the DSEIS I read did not have an errata page, so some of the details I mention here may have already been corrected.

On the last line of page 2-8, you speak of "at the time of the SEIS". Does this mean that more recent proposals have been made since the SEIS, or should that read FEIS or DEIS?

In the second paragraph of page 2-9, the document speaks of the extraction of heat from water as "an irretrievable and irreversible commitment of resources." The extraction of heat from fossil fuels is also "an irretrievable and irreversible commitment of resources," and one that increases pollution, but this does not seem to be worthy of comment when considering fuel sources for heating. In fact, this "irretrievable and irreversible commitment of resources" is running into the Yellowstone River at this moment without productive benefit to mankind.

The discussion of wildlife under Current Environment Conditions especially informative. We take pride in being "where the eagles gather," and we do not want to be the cause of unnecessary environmental stress to the raptor populations here. I certainly hope we can make whatever mitigation measures are needed.

Your table 3-1 on page 3-35 had me confused for awhile. I couldn't figure out why the nutrients would indicate an "instantaneous decrease...through the Royal Teton Ranch South". I finally remembered the Gardiner sewage problem, and then I could put it all together. Your discussion of this table in Chapter 4, page 4-38 and 39 was very good and politically neutral. I would like to see the two parts brought together more, or more information given in Chapter 3 indicating that the nutrient concentrations indicated are not necessarily baseline for the Yellowstone River. Especially as the subject is introduced with the comment that "the water quality...is that which one would expect from a relatively undeveloped river". As it is, a layman is left wondering what magic is happening at Royal Teton Ranch South to lower nutrient levels instead of just recognizing a simple gradient downstream from the source.

I liked your discussion of the Cumulative Effects Modeling on page 4-9. Your admission that such a technique would be superfluous, expensive and conjectural showed maturity and judgment.

There is something I would like to add to your Cumulative Impact on schools. Children of Church employees begin school at approximately three months of age. We do not have a buffer period of five or six years before we see an impact on schools. We need schools right now as a result of the change in population from single staff to families over the past three or four years. This magnitude of growth would probably not be expected to continue.

In summary, I found your DSEIS to be comprehensive, informative, readable, thoughtful, responsible and politically astute, if also somewhat repetitive and fragmented. Most important of all, it realistically dealt within the parameters of authority of the DHES (with a little editorializing on the geothermal resources at Spring Creek), and it came in on time. Members of the Church can't expect more than honesty and justice from a government body, and you have provided that in the face of tremendous opposition. I, for one, am grateful.

Sincerely yours,

Barbara Pettit

Barbara Pettit, Ph.D.

RECEIVED
JAN 12 1993
MDHES
Environmental Sciences Div.

Hank Rate
Box 966
Gardiner, Montana
59030

January 8, 1993

Mr. Tom Ellerhoff, Administrative Officer
Department of Health & Environmental Sciences
Cogswell Building
Capitol Station
Helena, Montana 69620

Dear Tom:

Enclosed is my statement at the Gardiner hearing, as I originally prepared it. I cut it down during the hearing as similar concerns were voiced, and dropped a few sections because you were pressing the time issue, despite the fact that it was a short meeting. (I do appreciate the fact that you allowed me to finish a longer presentation than you afforded the others. I felt it was important to document the sequence.)

Please include this in the record.

I also plan to submit some followup comments in a separate letter.

Sincerely,

Hank Rate

Enc: Original signed copy of my Gardiner presentation, as drafted.
Enterprise editorial 1/8/93

HANK RATE TESTIMONY AT CUT "DRAFT SUPPLEMENTAL EIS" HEARINGS, JANUARY 5 & 6, 1993. (I request that this be made a part of the record, in its entirety.)

My name is Hank Rate. My family has been nearly surrounded by CUT since the early 80s. I have been called a "CUT critic", but I am really a rancher and land surveyor whose main asset (our land and the nature of the surrounding lands) is directly affected by CUT's activities. I would be stupid not to pay any attention to the activities of a neighboring MAJOR LAND DEVELOPER. So I have watched what they are doing and have studied their teachings, as well as become acquainted with a number of members and ex-members.

In the five years since CUT sold out in California and moved here, I have aged a good ten years. I call it the Father-Mother effect: Father Time and Guru Ma. Everything I have learned has made me more apprehensive about CUT's intentions and ability to change the face of this country physically, economically, and politically. I have listened to tapes of Ed Francis praising James Watt and explaining how developers get around subdivision regulations. I have read and heard Guru Ma's call for more and more members to come here. In 1982 she said she needs many more people at the ranch, and that facilities needed to be in place to accommodate all members within 3 1/2 years. "Be ready to go to the Inner Retreat when you least expect it."

Guru Ma's son-in-law has told me that after CUT's battles with the zoning authorities and the California Coastal Commission, Ed Francis pronounced "We have to move somewhere where the locals are hicks." Outside "experts" have encouraged me to discuss my concerns with CUT, but early on Tim Connors and Richard Kalar refused to do so because "If we tell you what we're going to do, you'll try to stop us." (Of course, this eased my mind considerable.) I have heard Ed Francis on video tape tell how CUT is going to keep the Aldridge Road closed and show Park County that they "can't push the little guys around", encouraged by rousing cheers from the membership. Francis told them that CUT needed large contributions in order to buy a ready-made town and get it in place before the authorities stop them. (This was purchased from Decker and became the "Ranch Headquarters", within the chain-link fence, virtually overnight.)

I have watched and heard Chinese fire drills in the middle of the night in the pastures outside my bedroom window, including shooting and searchlights. My daughter has been followed down the highway with a searchlight. CUT patrols have stopped and questioned people on the county road. I have had CUT attempt to withhold my decreed irrigation water because I favored the County Commissioners looking into a zoning plan for this area. I have had CUT members stand on the river bank across from my bedroom and decree in the early morning hours. Obviously all these activities are wrong, and when complaints have been lodged, CUT has stopped that particular action, so all we have to worry about is what they're going to do next. I have been petitioned to support their position closing Mol Heron access, and been subsequently confronted with my refusal. My neighbors have been played off against me. CUT has named me as a "burden" in their internal documents.

I am not an isolated case. Many others have been listed as "burdens", and when you study "The Teachings", you learn that we constitute the "forces of darkness"and "fallen ones", and Guru Ma rants incessantly against such critters. CUT uses their petition campaigns to enlist support of local merchants. When a young man accused CUT of illegal activities during the first EIS hearing, their enforcer browbeat him into making a retraction (which he subsequently withdrew).

I have been a Pollyanna all my life (pre-CUT), believing that all a person has to do is work hard, do the right thing, and the good guys will come out ahead. My experience the last five years has made a confirmed cynic of me. Our regulatory systems have become hollow shells. They work only against the small-time, unsophisticated crook. Political power and cronyism can gloss over all evil. (Not just here: Study the Savings and Loan scandal, BCCI, Iran-Contra, IraqGate.)

It is patently unfair that DHES must take all the heat for CUT's impacts on this area. After all, the Health people are the only ones who have had guts enough to exercise any authority whatsoever. That said, I'm going to proceed to give DHES and the State of Montana hell, because it's the only show in town.

I worked very hard trying to list all the specific deficiencies in the original EIS, only to have my input totally ignored except for token acknowledgment of my blandest comments. I am sure that younger and sharper minds will take care of specific objections this time around, and I would like the public to have a capsule view of the process to date.

CUT sold out in California in the summer of 1986 and had to give up possession of Camelot in December. During that fall, they started building three new communities and completing a fourth (the Decker unit), assuming they needed no permits or public review other than sewer and water, which they were obtaining piecemeal. When it was pointed out that trailer parks required public review, they revised their plans and called their communities "bunkhouses" (subsequently "work camps").

The outcry over the instant disruption of the entire upper valley prompted the original EIS. Steve Pilcher was quoted as saying the EIS process would be completed in little over a month, and CUT was not charged for the review, as the State did not think it would cost over $3500, (which I believe is the statutory limit over which the developer must pay the costs). (CUT did contribute some self-serving studies to the process.) The draft was released in the spring of 1988. CUT claimed the delay was the State's fault, and the State claimed that CUT was dragging its feet in providing the information requested. A public hearing was held in March, and the input was so great that the final was not released until the spring of 1989. The UYDF challenged the adequacy of the document We were defeated in court, to my way of thinking because we were so naive about the legal process that we weren't able to get the facts on the table. Call it sour grapes, if you will.

At this stage of the game, we were supposed to know all of CUT's plans. A major thrust of the lawsuit was over the impact on the Taylor Place in upper Mol Heron (convention site), and the State had decided that convention use for 10 days a summer would not have significant impact on the wildlife, particularly the grizzly. Within a month, CUT was constructing a 750-person underground city on that very site ! This was highly publicized in local, State, National, and International media throught the summer, fall, and winter. Violations of building codes, wetlands protection, public sewer and water regulations, underground tank regulations, subdivision laws, etc., were suspected, but each agency in turn claimed no responsibility. Septic tanks were moved in, and sewage holding ponds apparently were constructed for each of the 6 "pods", with no permits applied for, but still no action on the part of our "protectors".

Then in January and February 1990, it became apparent that CUT was calling its members in from around the world and was preparing to move underground. Their internal documents, Guru Ma's dictations, and the frantic activities in the area made this obvious. (I can go into great detail to document this, but time won't allow.) Suddenly, on the afternoon of March 15, activity ceased, and the entire membership moved into shelters that evening. For whatever reason, they emerged the next morning, claiming it had been a "drill".

This finally got the attention of DHES, and it was suggested that some sort of review would be appropriate. A hearing to decide whether to do an EIS was held in Gardiner in April, the same day that fuel started leaking from three of the huge underground storage tanks. In short order, the Governor's

Office became involved, promising a "full-court press" on CUT. The current EIS was finally instituted. Initially it was referred to as an "expanded" EIS, presumably to include new information on issues glossed over in the orignal EIS. The State determined that the sewer and water systems at the group shelters were "public" systems and subject to State review. The State agreed that regardless of the fault for the leakage, CUT had ordered the work and was responsible for the consequences. Steve Pilcher has heard an audio tape by Guru Ma (discarded when CUT moved underground in March, 1990) saying that Pilcher is on a power trip in attempting to keep track of CUT's activities.

CUT challenged the State on several issues, and a lawsuit ensued. CUT disqualified a local judge and convinced the State's lawyer to disqualify the appointed replacement. Judge Rapkoch of Lewistown was finally selected. Various wrangling ensued, and then things appeared to simmer down. Too much.

In January, 1991, the UYDF traveled to Helena and met with a representative of the Governor's Office, Dennis Iverson, head of the Department of Health, and Steve Pilcher and his people. Pilcher took the position that new issues were being addressed, but that the original EIS should stand as written, and new information on old issues not be accepted. However, we left with the feeling that the Governor's Office and Steve's boss were convinced that such a volume of new information was available that it should all be considered in an "expanded" document.

So we all heaved a sigh of relief, convinced that finally "big brother" would do his job and we could get back to making our own way in the world, which isn't easy in Park County, Montana. The lawyers collected information in depositions presumably showing that CUT had planned the Mol Heron shelter far before the first EIS was completed, and other evidence of illegal or improper activity by CUT.

Despite our prior disagreements with Pilcher, throughout the early stages of the new EIS process, he always allowed as how one option would be to require CUT to remove the shelter from the Taylor Place.

But suddenly, in September, 1991, the bombshell fell. The State had entered into a consent decree with CUT, dropping all claims of illegal activity. This suppressed all the valuable evidence collected, and gave up State control of the sewer and water systems. The State "got" CUT's agreement to submit to a "supplemental" EIS of limited scope and cost (unprecedented), and it was apparent on the surface of the document that the State would not tell CUT "no" to any of its proposals. (Note that the

State can require an EIS independent of court action. Also note the change in terminology from "expanded" to "supplemental", considerably downgrading the scope of the promised EIS.)

When info on the consent decree appeared in the paper, I called the Governor's Office, and talked with Art Wittich, the representative who had been so reassuring at the meeting in January. He said he only learned of the consent decree when he read it in the papaer. He allowed as how the Governor's Office had pulled out of any involvment six months before, and had left the entire negotiation up to Steve Pilcher and Ed Francis. When I asked why, he said: "Hank, they just wear you out !" He also assured us that we would have 30 days to comment before the Judge signed the order.

Next I called the Billings contract lawyer who had been representing the State. To my amazement, he said that he had been discharged months before the consent decree was negotiated. Then I called Steve Pilcher, and he claimed that the State got everything it wanted, to wit: the emasculated EIS. I asked Pilcher whether the EIS would evaluate the option of removing the large shelter, and he evaded the question by going on about having recently inspected the area and how impressed he was with the amount of time, money, and effort that had gone into this edifice. Talk about smelling a rat !

The next thing I learned was that the Judge had signed the decree before I had even talked with Art Wittich ! (This a judge who had never taken action on anything relating to this case in less than 4-6 weeks !) What it boils down to is that the Governor's office got alot of good publicity while the issue was hot and then bailed out when it came time to roll up their sleeves and go to work.

From this point on, the document before us was foreordained. CUT was to get everything it requested, papered over by hundreds of pages of EIS.

The most significant aspect of this consent decree was that the State dropped its contention that the Mol Heron Shelter needs approval for a public water and sewer system. This is based on CUT's agreement that the shelter will be used for no longer than 60 days under any circumstance. Nothing in CUT's literature hints that the shelters will be used for less than a minimum of seven months. All must have seven month's food supply, and in many cases, CUT has sold its members 7 years food supply. (In one Montana Pioneer ad, 21 years food supply is offered for sale.) Also note the fuel capacity as relates to maximum possible load (Richard Parks). When these issues have been pointed out, the reply is that "CUT has agreed". The law specifically includes as public those systems **designed**

for occupancy for more than 60 days. Moreover, who is going to accept the word of a convicted felon whose felony was lying, especially if all the enforcers have been incinerated by the blast ?

An interesting aspect to the Consent Decree is that the foundation of the State's lawsuit was information showing that the Mol Heron shelter had been planned long before the first EIS was concluded, and that occupancy was both designed and planned for over 60 days' use. Depositions were obtained at considerable expense, presumably proving these points. However, by signing the Consent Decree, the State gave up the right to use this information, and had to proceed with this EIS, pretending as if the information never existed !

Now let's look at what went on while the EIS was in preparation:

CUT proceeded with a number of developments, either claimed to be single family dwellings (and hence exempt from the EIS), or developed in name by individual members, (such as the medical clinic and hunting lodge). The State has bought off on each such argument, presumably because it would complicate the EIS to include them, and perhaps escalate the cost beyond the agreed-upon $75,000.

The mitigation measures in the original EIS appeared at the time to be inconsequential and no burden whatsoever to CUT. However, as time went by, some of them **did** prove inconvenient to CUT. They violated their agreeement not to pump their geothermal well, because they needed to pump it in order to establish a water right when Congress took up the issue. DHES stopped them, but they had pumped enough water to get a right from the State, despite the fact that the pumping had been in violation of their own agreeement with the State ! SAY WHAT ?

On the same days that they were pumping the geothermal well, they were also grazing their sheep south of Mol Heron Creek, under the watchful eye of the herder (so the sheep hadn't just strayed), another violation of their prior agreement......made to protect the mountain sheep breeding grounds from contamination by diseases/parasites of domestic sheep. These violations were pointed out in writing to both DHES and the EIS contractor. How can you make a deal with people who operate like that? They seem to feel they will agree to anything in order to get the necessary permits, and will suffer no consequences if they subsequently break the agreement. Why do you have to bend over backward to give them everything they demand?

Admittedly, $75,000 would barely cover the salary of one good man reviewing all the documents that have been submitted to the State to date. However, we have a right to expect a reasonable amount of field research. I, for one, was never contacted by the folks who prepared this document. As far as I know, they spent one day on a field trip with Tom Ellerhoff (who prepared the first EIS). Tom called the day before the field trip and asked for input on items to look at. I asked if they were going to look at Glastonbury and the North Ranch on the same day as the South Ranch, and he allowed as to how they were. Then he said, "Incidentally, where is the North Ranch?" Some field research !

As has occurred for the past ten years, CUT has continued to do anything they want whenever they want (regardless of convictions, lawsuits, bad publicity, EIS's, and "stupid mistakes"). On the few occasions when they have been caught, or when the transgression has been too spectacular to be ignored (such as the fuel spill or the intentional dumping of raw sewage near Yellowstone Park), they have isolated and trivialized the incident and been forgiven with the assumption that such a thing can never happen again. As long as this many people are doing this many stupid things in this fragile an area, bad things are guaranteed to continue to happen.

Reference is made to the original EIS as covering the sociological aspects of CUT. We originally objected that available studies were ignored at that time, and only findings favorable to CUT were published. Since that time, three members have been arrested for illegally purchasing military-type weapons. Two spent time in jail, including the husband of Guru Ma.

A lengthy lawsuit (The Gregory Mull case: Second Appellate District of California (CUT v. Linda Witt Super. Ct. No. C358191) which ultimately found CUT and Guru Ma liable for damages to the tune of $1.5 million dollars includes alot of interesting sociological information which this EIS ignores. They include actions which the court finds "shameful", "reprehensible", and "despicable".

The first EIS carefully skirts the "cult" issue. The Marion Superior Court of Indiana (Cause 49D01-8904-DR-563, Scott Lee Scheibler v. Carol Ann Scheibler) states "CUT is , in fact, a cult" under the control of Elizabeth Clare Prophet, and goes on to describe the reasons for this conclusion. This decision is ignored in your findings. CUT has directed alot of effort recently against the Anti-Cult movement. If they are not a cult, why are they so concerned about anti-cult activity?

I have recently reviewed my notes taken during CUT's preparations to go underground and the subsequent occupancy of the shelters. It was a very harrowing period for the CUT members and for those of us living in the middle of it. We asked that the impact of this frantic activity on all our lives be considered in the EIS. We were ignored.

CUT seems to claim that none of this even occurred, and that the occupancy was only a drill ! If it was only a drill, it was the damndest drill I ever witnessed. Local disaster relief, law enforcement, neighbors.......all were kept in the dark. (Guru Ma subesquently told a reporter that "she could't recall" whether she had informed the members that it was a drill.) CUT sold off assets, members abandoned vehicles on the roads, everything of value was moved to the shelters, trucking of materiel simulated a military movement, members were buying volumes of weapons and ammunition, and the local outdoor stores were sold out to the walls. School kids were seen in radiation suits. My neighbor, who ran a CUT repair shop, spent days before they went underground sandbagging his property and "circling the wagons" (vehicles) around his home. Glastonbury resident Eleanor Schiefflin (sp?) was quoted in an article as saying how surprised she was to emerge on the morning of the 16th to find the birds singing and the sun shining. SOME DRILL!

CUT feeds on predictions of global cataclysm. (See Atlanta meeting news article, October, 1992) As long as the shelters are here, this trauma will be repeated. GUARANTEED ! We deserved to have this discussed in the EIS.

Numbers of people who will come to Park County has long been an issue. Guru Ma repeatedly has stated that all members need to be here when cataclysm occurs. So the total number of members is significant. CUT claims to have no record. Yet when the IRS decided to revoke CUT's tax-exempt status, CUT stated that they would immediately notify the members. I'd say that if you can do that, you can count the number of notices sent out......... or perhaps just push a button on a computer !

Another case in point: CUT claimed to have 5000 to 6000 people in attendance at this summer's conference. In one of her sessions, Guru Ma, speaking as an ascended master, requested the membership to assure that 2 to 3 times as many people attend next year's summer conference. Has the State evaluated the conference site (and access thereto) for this many people ? And what if CUT decides to go underground at that time ?

One issue that has never been explained to a layman: What is a work camp (name selected only when the orignal communities were challenged in 1986-87) as it relates to CUT use? How long can a work camp be occupied? Do permits need periodic renewal? Can occupants hold jobs outside CUT ? Is there any limit to the number of mobile homes that can occupy a work camp site ? In other words, can a mobile home park (subject to public review under that title) be operated as a work camp with no public review ? **Several of my clients are interested.** Why has the Ranch Headquarters (the Decker purchase) been allowed to be fully occupied since at least 1984 without ever having obtained the necessary work camp permits? It seems that Ed Francis was correct in 1982: If CUT could get that (Decker) set of facilities purchased, moved, and occupied before the authorities took action, they would be home free.

The Mull appeal points out how CUT uses the planning process for fundraising. It states that Mull was deceived into spending alot of time on architectural plans for structures CUT had no intention of building. The State and Park County have been taken in over and over again by CUT's ability to draw fancy plans and to change them on a moment's notice. Does this make you feel good that the current review is actually addressing what will occur on the ground? Aren't you a little queasy about the construction that has gone on over the past few months that is barely addressed in the EIS?

When the bomb shelter was constructed immediately following the first EIS, Steve Pilcher was quoted as saying: "I've been had." Perhaps this is "HAD TWO".

To much of this, CUT will cry "bigotry". However, I submit that you consider that when CUT cries "bigotry" (as per Gene Vossler's bug-eyed, incendiary diatribe at the April 1990 meeting the day the oil spill was reported) they are playing their hole card. It means they can't counter the current charges with facts, and are counting on scaring all civil authorities out of their skivvies with cries of religious discrimination.

In the October 27, 1991 issue of Pearls of Wisdom (a CUT publication) Buddha (speaking through the lips of Guru Ma) conferred "the mantle of the Lord of the World" upon Guru Ma. (Hope she didn't dislocate her shoulder.) Murray Steinman is quoted in the Calgary Herald (Sep 27, 1991) as saying (with reference to the conviction of Ed Francis for illegal weapons purchase): "Ed made a stupid mistake." Ed Francis is ECP's husband, a member of the Board of CUT, and CUT's principal spokesman in temporal matters. If the husband and spokesman of the Lord of the World is capable of a "stupid mistake", how secure can we feel?

Sincerely,

opinions

Going through the motions

State officials came to the area this week, to go through the motions on an environmental review of the development plans of the Church Universal and Triumphant.

Most of the outcome was pretty predictable.

A hearing, held in Gardiner Tuesday night and "continued" in Livingston Wednesday night, was intended to gather commentary on a Supplemental Environmental Impact Statement, SEIS, describing the CUT's plans. It got a turnout of about 150 people in Gardiner, and a slightly smaller crowd in Livingston.

Amazing the sessions got any attendance at all, in light of the fact the state scheduled it a few days after the New Year's holiday, and with the driving conditions poor and temperatures well below zero.

The agenda for the Gardiner session was pretty full, and included 18 speakers. The Livingston session had only four.

The turnout in Gardiner, and the quality of the commentary, demonstrated that the folks in the Gardiner area have gotten pretty well informed about the threats posed to their surroundings by the CUT's plans. They've gotten savvy about the process of review and approval of an EIS, and demonstrated their willingness to continue to fight to protect their neighborhood.

The Livingston turnout was a little disappointing, but not a big surprise. The session was added at the last minute, and the bureaucratic wrangling, the 40 miles distance and several months since the last major incident — the bomb shelter fiasco in Mol Heron — have lulled some of Livingston into a little complacency over the CUT's development plans.

The regulators, in the eyes of several of those attending the sessions, appeared to be going through the motions with not a lot of interest in the content of the commentary. They restricted comments wherever possible to five minutes duration, even at the Livingston session where the list of speakers could easily have allowed further discussion.

The CUT and its membership offered no commentary about the SEIS, and no response to the comments made by critics. In a little strategic stacking of the deck, CUT officials said they will offer their response in writing, and the regulators said those comments won't be released to the public until after the SEIS is finalized.

The public is invited to offer additional written commentary, until January 17. The regulators will review all the testimony, and they say they will consider it all with equal weight. Their comments Tuesday and Wednesday might make you wonder about that — two state officials said they really hadn't heard anything they hadn't heard before, and hinted the commentary would be considered in the same vein.

A lot of the comments offered Tuesday and Wednesday criticized the state's administration of the review process, almost more than it did the CUT 's plans. The bottom line of the whole process continues to be the feeling, at least in this neighborhood, that the state, and its regulatory procedures, have really let us down.

letters

Write it down

Editor:

Wednesday night's hearing on the Draft Supplement Environmental Impact Statement was an almost nonvocal hearing. Except for four who signed up to speak and one who asked a question, the meeting was listeners. Those speaking listed points they wanted to be assured were well covered by the impact study prepared regarding CUT developments in Park County.

The aim of the hearing was to take testimony from the public regarding the study. As there was no rebuttal period and the hearing closed without questions, answers or comments, there was little testimony from the audience.

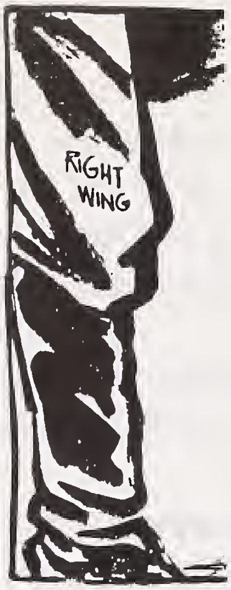
If concerns about the impact study are measured by numbers of speakers, it appears that Livingston is not very interested. If the degree of concern is measured by the points covered by those who did speak, Livingston is very concerned. Had there been a discussion period, I think more comments from the public would have been voiced, especially on the points effectively stated by the speakers on open-trench waste disposal, camping facilities 200 feet from the river edge, additional residents in areas where there are not now sewage systems for handling public facilities, encroachment on wildlife habitat and increased farming activities near the river.

We won't have a second chance to speak up but we do have a chance to write our concerns to the producers of the study, who assure that all letters will be given consideration.

If you were one who wanted to speak up but didn't, if the speakers raised a point you'd like to respond to, if you felt you didn't know enough about the document to speak, write by January 16 to: Tom Ellerhoff, DHES, Cogswell Building, Capitol Station, Helena, MT 59620.

The impact is on our river; we can't let it go unprotected because we didn't say what we feel it's too close to our lives.

Margot L. Aserlind
48 Island Drive



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Committee of the Whole
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Hank Rate
Box 966
Gardiner, Montana
59030

RECEIVED
JAN 19 1993
MDHES
Environmental Sciences Div.

January 14, 1993

CERTIFIED MAIL

ADDITIONAL COMMENTS ON CUT DRAFT SUPPLEMENTAL EIS

Mr. Tom Ellerhoff, Administrative Officer
Department of Health & Environmental Sciences
Cogswell Building
Capitol Station
Helena, Montana 59620

Dear Tom:

This is just a mop-up letter to make sure specific issues that I have discussed with you or Steve (or others in the EIS loop) over the past year get included in the formal comments:

I am including copies of 3 letters I have sent:

1) Jan 8, 1993, transmitting the full prepared text which was the basis for my presentation in Gardiner on January 5.

2) Aug. 30, 1992, transmitting articles on the Marion, Indiana decision on CUT's social structure.

3) July 4, 1992, notifying you of two simultaneous violations of the original mitigation agreements. This also discussed the proposed time of occupancy of the large Mol Heron Shelter, and included Montana Pioneer ads for food supplies varying from 7 months to 21 years (none under 7 months). This also discussed the possibility that if CUT has any problem getting their fuel back in the ground, they might go to all propane power.

I want to note DHES's adversarial attitude at the hearings, especially at Livingston on January 6. There were alot of people there who wanted to learn something, and the formalities precluded that. I can understand that the hearings must be conducted in a manner that will withstand legal challenge, but the first time around (March of

1988), presentations were made by both CUT and the State to frame the issues, rather than leave the man on the street in the dark. Remember, this was the FIRST draft EIS hearing held in Livingston, and the term "supplemental" is not germane to the Emigrant-Livingston experience. Knowing that only 4 speakers had signed up, it seemed particularly rude to cut off Carlo Cieri (the only official) after five minutes. The remainder of his presentation was very important, and the public should have heard it. (I hope you read it carefully. It is extremely thoughtful and heartfelt.)

Random issues that I have discussed over the past several years:

1) Is there any limit to the time the "frac tanks" may be left in place. I'd guess there is a 150,000 to 200,000-gallon storage capacity there, and it sure looks to be more and more of a permanent installation. It is an educational experience to look at them and realize that their capacity is considerably less than what CUT proposes to put back underground in Mol Heron.

2) What is to become of the "oil farm" near Aldridge Lake? It went onto a non-irrigated site, so I assume it will need to be revegetated with native dry-land species or be sprinkled indefinitely if it isn't to become a vector for noxious weeds or just barren eroded land.

3) CUT has started using a strip grazing method (New Zealand style, with electric or other temporary fences) between the county road and the River north of Mol Heron Creek. All else being equal, this is good pasture management, but in this case it forces the animals into intense grazing of the riparian zone of a blue ribbon fishing stream.

4) CUT manages to have at least one major washout from its flood irrigation systems each season. Major slumps have occurred across the river from me, and their farm manager claims the damage results from "springs". This is patently wrong, as I can testify to as a professional land manager, as well as with photos.

5) The Mol Heron convention site is briefly discussed from the standpoint of drying up natural wetlands. The EIS implies that these wetlands were created by irrigation overflow. Although a questionable explanation in an area that is obviously willow-bottom with muck soils and prime beaver and moose habitat, this argument only addresses

changing stream channels. The larger issue is drainage of wetlands. This was admitted by CUT in the early 80s, when the convention site was developed. Then after this area was used as a staging site for the bomb shelter construction, it was so dramatically mucked up (Does this tell you anything about the soils?) that another huge drainage program had to be instituted. In the summer and fall of 1991, huge quantities of gravel were hauled into the tent site and "campground" east across the creek from the shelter. A large trench was dug around the east and north sides of the convention area (pictures are available) and subsequently filled. I assume drainage structures were installed to intercept the springs at the base of the mountain which I suspect are the main source of the moisture that has created the swamp on which the convention site is constructed. The EIS does not discuss how these activities relate to wetlands laws and regulations.

6) Since the EIS addresses the need to monitor the big shelter for public safety (effectiveness of systems, etc), it might be worthwhile to note that it cuts off the mouth of a significant side canyon which has steep high-energy slopes. Flooding in one or more of the pods has been reported by ex-members.

7) The EIS states that fuel tank and septic system installations will be subsequently permitted by appropriate agencies. The assumption seems to be that these installations can be made safely and that only design review and supervision will be required in issuing the permits. I don't see any review of the soil structure (especially in light of the fact that all the natural structure has been destroyed) as it might relate to these installations. It also should be considered in the light of CUT guidelines that all tanks and structures need to be covered with 20 feet of earth. You are, in essence, handing the permitting agencies a mandate to issue permits for installations that may not be possible to construct safely, especially this close to an important stream.

8) Along the same lines, aerial photos taken during the construction of the big shelter distinctly show septic tanks and (probably) seepage pits (or holding ponds). At that time CUT had not submitted plans or applied for permits. Have you ever seen their original plans? Would they have been acceptable?

9) When the consent decree was announced in the newspapers, I called Steve Pilcher (10/22/91). The following notes relative to finding the

shelter sewer and water systems "private" are copied directly from my notes taken during the conversation: (Among other things) "I complained about accepting the 60-day claim, because if the State doesn't buy this, it has to be public. I said there's copious evidence that CUT never used this in their planning. I asked about Shawn's soliciting money for moving the archives into the shelter........... He blew up and said "I get tired of this bull ....!" You people are always claiming you can prove something and never provide us the proof!" I couldn't believe this, because we have provided the Billings attorneys with piles of this stuff. I also said that he has never asked us for proof or photos or anything of the like, although we have offered repeatedly." Shawn Prophet's memo is available. I should note here that it was only a couple of days later that we found out the Billings attorneys had been discharged June 1. Evidently the material they collected was not available to DHES when the Consent Decree was formulated.

10) Gravel crushing operations and extensive surface disturbance are not adeqately discussed with reference to weed control, especially spotted knapweed. The interaction between Emigrant (core of the Park County knapweed problem) and the South Ranch is a serious vector.

11) The "escape route" road from the big shelter to Aldridge is not discussed. During construction of the big shelter, public Coal Rehabilitation funds were expended to construct this road and open old mines and place locked steel grates at their entrances (despite the fact that this is not even approved practice by the State).

12) The geothermal issue has been discussed in other comments. I would like to emphasize that during the original EIS, we were assured that any actions involved with geothermal waters would be subject to separate exhaustive review, with plenty of opportunity for public input. This spring, CUT pumped their well in violation of the original mitigation agreeement, and the State subsequently issued a geothermal water right with NO opportunity for public input and minimum discussion in this document.

13) The extensive well drilling program in the Spring Creek area in spring 1992 is not fully explained. The drill rig made at least five settings above the county road and at least three settings along the river near the existing geothermal well. This does not jibe with the figures provided in the EIS and doesn't address the possibility that the

geothermal aquifer has been tapped in more than one location.

14) Discussion of law enforcement problems only scratches the surface. The general statistics fail to reveal the impacts of CUT. At a minimum, specific instances could be noted. The shooting up of an acknowleged CUT caravan in Yankee Jim Canyon on New Year's 1990 is an example. (Certainly a low point in the behavior of the locals, but acknowledged by CUT to be CUT-related). Numbers of arrests for lack of liability insurance should tell a story. Also illegal passings of school busses. Etc. I just don't think an honest effort has been made to summarize the available information.

15) Discussion of impacts on the school system is inadequate. Numbers alone don't tell the story. Extreme fluctuation in school attendance almost caused the closing of the Richland School a couple of years ago, for example. Absense for the purpose of occupying the bomb shelters is another subject. There have been problems with kids with CUT Montessori backgrounds attempting to transfer to public schools which have different requirements for graduation.

16) The transport and storage of expendables related to lengthy occupancy of the shelters is not adequately discussed. For example, large quantities of grain, either in storage or in transport through Yellowstone have the potential for impact on bears, such as the repeated grain spills south of Glacier Park in recent years. Ammonium nitrate, ostensibly a fertilizer, is also a powerful explosive, and was reported to be stored in quanitity. The propane and liquid fuels have been commented upon, of course. Other materials associated with the shelters are obviously hazardous. Huge concentration of such materials would certainly magnify the impact of the explosion (or possibly spill) of any of the materials discussed. To non-believers, this sort of accident is infinitely more likely than a nuclear attack on CUT.

In other words, the presence of these shelters is a greater threat to both CUT and the other residents of Park County than is any threat the shelters might be intended to protect against.

Sincerely,

Enclosures as noted.

File

Hank Rate
Box 966
Gardiner, Montana
59030

original not certified

January 8, 1993

Mr. Tom Ellerhoff, Administrative Officer
Department of Health & Environmental Sciences
Cogswell Building
Capitol Station
Helena, Montana 69620

Dear Tom:

Enclosed is my statement at the Gardiner hearing, as I originally prepared it. I cut it down during the hearing as similar concerns were voiced, and dropped a few sections because you were pressing the time issue, despite the fact that it was a short meeting. (I do appreciate the fact that you allowed me to finish a longer presentation than you afforded the others. I felt it was important to document the sequence.)

Please include this in the record.

I also plan to submit some followup comments in a separate letter.

Sincerely,
Hank Rate

Enc: Original signed copy of my Gardiner presentation, as drafted.
Enterprise editorial 1/8/93

(Note: Reference Page 3-255.)

File

Hank Rate
Box 966
Gardiner, Montana
59030
Aug 30, 1992

Mr. Steve Pilcher, Administrator, Environmental Sciences Division,
Montana State Department of Health and Environmental Sciences
Cogswell Bldg., Capitol Station, Helena, MT 59620

Dear Steve:

Enclosed are 2 articles regarding a recent court decision, which is almost 100% based on CUT's operations, even though CUT is not a specific party.

I'm sure you already have a copy of the Mull Appeal decision issued by the 9th Circuit Court of Appeals in California after you issued your original final EIS. This is the one that goes into detail about CUT's treatment of its members and uses adjectives such as "shameful", "reprehensible", and "despicable" to describe CUT's actions, with specific reference to Elizabeth Clare Prophet, Ed Francis, and psychiatrist Dr. Ralph Yaney. If you haven't seen this, I can provide a copy.

i understand that you consider anything covered in the original EIS as moot at this time, and you well know that we do not agree. Be that as it may, we strongly feel that NEW information regarding issues discussed in the original EIS should be included in the current EIS. If you reread the sections of the first EIS pertaining to sociological impact, you cannot help but agree that these court cases strongly contradict the bland earlier treatment. The new EIS must update this subject, in light of the above two published court cases.

Please include this with the data relative to the current CUT EIS.

Sincerely,

Hank Rate

enc: Chronicle article 8/27/92: Judge: 'CUT', in fact, a cult
Enterprise Artcile 8/26/92: CUT member loses custody of children.

FILE

Hank Rate
Box 966
Gardiner, Montana
59030

July 4, 1992

Mr. Steve Pilcher
Administrator, Environmental Sciences Division
Montana State Department of Health and Environmental Sciences
Cogswell Bldg.
Capitol Station Helena MT 59620

Dear Steve:

Thanks for putting out the effort to review the literature and find where CUT had pledged not to use the hot water from their well until they had met certain requirements......and for following up with Ed Francis.

Enclosed please note the public response of Francis. He seems to be saying that he deliberately violated the mitigating measures in the first EIS (probably originally drafted by him). If he subsequently uses this argument to attempt to establish a geothermal water right, I would think it would seriously damage the credibility of any mitigation measures (and hence the whole process) of the current EIS.

Add to that the fact that they were at the same time as the geothermal pumping grazing their sheep on the bighorn winter range south of Mol Heron Creek, another violation of the agreed-upon mitigation.

I am eating a little humble pie. As you know, we felt the mitigation in the first EIS was weak, toothless, and constituted eyewash that CUT had already put into effect (for reasons of their own convenience or cheap PR). So it amazes me that CUT would violate their agreement and actually be affected by the consequences.

This sort of activity must be addressed in the current EIS, and new mitigation measures evaluated in light of the track record of these people. Remember, you are dealing with a convicted felon, and his felony was lying.

So let's move on to the major thorn in our side throughout this process: Your ruling that the sanitary systems for the shelter at the Taylor Place are not public, because CUT has agreed not to use it for more than 60 days. I am enclosing a Far Side cartoon that may illustrate their frame of mind on that issue. Also enclosed are clippings from the current Montana Pioneer, which is only the latest in a long line of CUT literature (the Pioneer publisher served as CUT's staff PR man in the early 80's) debunking the 60-day myth. There are seven bomb shelter ads offering anywhere from 7 months to ten years' supply of food to go with shelter spaces. I have yet to see anything suggesting that they can survive with less than 7 months' supplies, and the only reference to 60 days was by ECP herself immediately after discovery of the shelter construction and Hamilton's (shortly before Francis') arrest, and in direct response to the question of whether the sanitary systems were public or not.

Your feeling that they still must be permitted to reinstall the fuel tanks may be short-circuited by a move to go to all propane fuel, preparations for which seemed to be in the mill before the consent decree was announced.

How can anyone make deals with an outfit like CUT? How can the EIS process have any credibility under these circumstances?

Sincerely,

enc: Article where Francis says they have the water right by virtue of having pumped.
Cartoon
Copy of Pioneer

WASHINGTON (AP) — The government and the food industry are collaborating on a $33 million message to Americans — eat more fruits and vegetables to cut your risk of contracting cancer.

And while you're at it, says a consumer group, try to get the producers of television's Saturday morning cartoon shows to substitute commercials for healthy fare for some of the ads touting sugar-coated, high-fat junk food ads.

The National Cancer Institute on Wednesday announced a five-year, $33 million program to get Americans to eat at least five servings of fruits and vegetables every day.

At the same time, a consumer group released its latest survey of Saturday morning children's TV programming showing that ads

(More on Veggies, page 8)

LINDA BEST CHRONICLE

Terry Schott, foreground, and Ed Corby of Pioneer Masonry recaulk the joints on the outside of the eighth floor of Roskie Hall this morning on the Montana State University campus.

Chronicle 7/2/92

'hurch shuts off pump on geothermal well

SCOTT McMILLION
onicle Staff Writer

LIVINGSTON — The Church Universal and Triumphant has agreed to turn off the pump on its geothermal well, Montana Environmental Sciences Division Chief Steve Pilcher said today.

Church vice president Ed Francis agreed Wednesday afternoon to shut down the pump after Pilcher pointed out Francis had promised in 1989 not to use the well without state approval and possibly undergoing an environmental impact statement.

"The church agrees that the geothermal well drilled to tap the aquifer serving LaDuke Hot Spring will not be developed or utilized until a change in the point of diversion and place of use is authorized by the Montana Department of Natural Resources and Conservation under Montana Water Law," states an agreement with the state signed Feb. 16, 1989, by Francis and his wife, church spiritual leader Elizabeth Clare Prophet.

> 'The important thing was to establish a water right. We have indicated we will comply with the request from the Department of Health. We are not intending to abandon our water rights.'
>
> — *Ed Francis, vice-president, Church Universal and Triumphant*

The church uncapped its well Sunday, filled a swimming pool with hot water, and irrigated some land in an effort to bolster its claims for compensation under pending federal legislation that would ban geothermal development near Yellowstone National Park.

Francis said today he believes using the well for a few days is enough to establish a water right.

"The important thing was to establish a water right," Francis said. "We have indicated we will comply with the request from the Department of Health. We are not intending to abandon our water rights."

Pilcher said today the 1989 agreement is a binding contract [illegible] church had not complied his [illegible] court order. He said he [illegible] brief pumping spell was [illegible] water right.

Sen. Conrad Burns, R-Mont., has introduced amendments to the Old Faithful Protection Act, authored by Rep. Pat Williams, D-Mont., that would compensate holders of valid water rights if the law keeps them from using their wells.

Until Sunday, the church had a geothermal

(More on Well, page 8)

---

budgets, the state gents circled its wagon day.

Members agreed to study costs of intercollegiate sports duplicated academic programs the university system, while ruling out the possibility of clos one of the six schools.

The regents' decision to cons er drastic long-term steps for s ing money was prompted by Stephens administration's propo to cut $12.4 million from higher ucation. That recommendation part of the governor's plan to eli nate a projected budget deficit $102 million.

A special legislative session c venes Monday to deal with t problem.

"If current proposals persist, have to look at very serious mo in the future," Commissioner Higher Education John Hutchins told the regents at an emerge meeting here.

Board members agreed the ti is ripe to consider bolder moves the face of an even larger deficit pected in 1994 and 1995.

"Whether we like it or not, we going to see a complete restruct ing of the university system in next few years," said regent Ken Schwanke of Missoula. "Sho term, Band-Aid things we do not going to be the answer."

Pressured by regent Tom To of Billings, the board agreed study the role of college athletics Montana and whether the state continue to afford the progra The state spends about $9 millio year on sports, or about 60 perc of the programs' budgets.

(More on Regents, page 8)

American agrees to become Yugo

SARAJEVO, Bosnia-Herzegovina (AP) — A convoy of 350 Canadian soldiers reached Saraje-

In Washington, Panic (pronounced PAHN-ish)

wilting way.

Well/ *from page 1*

well, drilled in 1986 but capped since then, but no official water rights for the well. Then it turned on the water, filled the swimming pool, and filed a notice with DNRC claiming up to 35 gallons per minute of water.

State law requires the department to approve that claim if the paperwork is done correctly, DNRC lawyer Don MacIntyre said Tuesday. However, in 1989 the church promised that before it uncapped the well it would file a different type of water rights claim that requires more stringent environmental review.

That type of claim, a change in the "point of diversion" claim, is not automatically granted and can spur a full environmental impact statement analyzing the impacts of using the well.

Francis said an "overly strict interpretation" of the 1989 agreement was not in the public interest. That agreement did not forbid drilling another well to establish a water right, something the church could have done at any time, he said. He stressed the church has no intention of doing that. He also said that everybody has known since 1986 the church wanted to use the well.

He also said pumping the well for a few days had "no discernible impact" on nearby LaDuke Hot Spring, to which the church owns the rights to the surface flow.

Burns' amendments to the geothermal bill drew fire from Democratic Sen. Max Baucus, who called them "an unacceptable weakening" of the bill.

"The compromise doesn't address the most serious issue: protection of Yellowstone Park from drilling in the Corwin Springs area," Baucus said.

Burns' amendments, in addition to assuring compensation for holders of valid water rights who lose them because of the law, would allow geothermal development in the Corwin Springs area if the governor of Montana certifies it would not hurt Yellowstone's thermal features.

"Does the state have the technical expertise to really know if it can protect the park?" wondered Baucus aide Mark Smith, who said protecting Yellowstone should be the job of the federal government, not the neighboring states.

"It's not a state resource, it's a national treasure," Smith said.

Baucus said he will seek changes in the bill that would beef up protection for Yellowstone.

Francis today blamed environmental groups for his decision to turn on the pump. He accused them of spending more time and energy on making sure the church is not compensated than they do on protecting Yellowstone.

PIONEER JULY 1992

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Story

STORY RANCH
EMIGRANT, MONTANA
59027

RECEIVED
JAN 15 1993
MDHES
Environmental Sciences Div.

January 13, 1993

Steve Pilcher
Water Quality Bureau
DEHS
Cogswell Building
Capitol Station
Helena, MT 59620

Dear Steve,

These are my comments in regard to the most recent EIS of the Church Universal and Triumphant in Paradise Valley.

The state appears to sanction placing a sewage lagoon on my boundary with Glastonbury North.

This would place Fridley Creek and the springs that feed the homes on Story Ranch at an unacceptable risk. It would force me to hire hydrologists and attorneys to defend Story Ranch. This places us in an intolerable position. The Park County Planning Board and the Park County Commissioners agree with me.

Please don't let this happen.

Sincerely,

Pete Story

Pete Story

Vollbrecht

Thomas Ellerhoff **January 16, 1992**
DHES
Cogswell Bldg.
Box 200901
Helena, MT

My first thought before penning this letter was to ask you to dust off the letter I sent four years ago concerning the EIS and CUT development. In my letter four years ago, I wondered why the Church was being held to such stringent inspection standards while the Park, which was in the process of expanding its already immense operations was seemingly free of scrutiny.

It still seem incredibly incongruent to me that the Park which had 3.1 million visitors last year alone, continues to build and expand its facilities with little or no controversy, while an organization **outside** the Park wants to upgrade its facilities for a few hundred is examined under a microscope. My guess is that the support staff alone for the Park probably outnumbers the total staff at CUT.

Ane then there's Gardiner. Aren't facilities and shops there being transformed? Aren't new condos being planned next to the river? Isn't Gardiner closer to the Park than CUT?

Oh well, just another incongruency.

The EIS has gone the course and should be accepted. It was completed by highly competent professionals over an extended period of time. If not, I'll have to dust off this letter and send it in again in a few years. By then, Park attendance will be up to 3.5 million and Gardiner will continue to be transformed to accomodate those who are drawn to the area. I believe the Church should be treated with the same respect and standard that is used with the Park and developemnt in Gardiner.

Sincerely,

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Mr. Thomas Ellerhoff
Assistant Administrator
Environmental Sciences Division
Montana Department of Health
and Environmental Sciences
Cogswell Building
Helena, Montana 59620

January 16, 1993

RECEIVED
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MDHES
Environmental Sciences Div.

Dear Mr. Ellerhoff,

I appreciate the opportunity to comment on the Draft Supplement EIS on Church Universal and Triumphant.

I am impressed by the depth of study that has occurred during the last seven years. The original DEIS had 150 pages, 213 references and was written by 6 contributors. A year later the FEIS added another 370 pages of comments. Now the DSEIS is a full 250 pages with 283 references and is written by 21 contributors.

I noted in the DSEIS its increased sophistication and depth of research. The breadth of scope is due to the much larger list of contributors. It is interesting to note the change in tone and style from section to section. the document is cohesive and even though of a technical nature it reads well. I was particularly impressed by the work in the fisheries section. In this section original research was compiled along with interviews to create a current synopsis of the state of the Cutthroat fisheries in the Upper Yellowstone. It could stand alone as a Cutthroat Trout primer.

I was delighted by the various sections on the history of the area. It was quite readable and informative. I am an amateur historian and plan to refer to these sections both in the DSEIS and DEIS, when I give historical tours of the Ranch. A better overview of the history of the area would be hard to find.

It is unfortunate that some who commented recently on the study chose not to read it. I found all three documents readable and I learned quite a lot. I appreciate the sheer volume of work that went into this study.

Though an EIS is not required to be exhaustive, the final process will have produced 4 volumes and almost a thousand pages. I conclude that the Church has been put through as thorough a review as can be done and certainly a lot more thorough than what many other landowners are subject to.

When such a thorough study is rejected outright by some who won't even read it and yet demand more studies and restrictions, it becomes evident that we all must move on. This process has occupied over seven years of all of our lives.

The plan proposed by the State in the DSEIS, that is approval with reasonable mitigation measures, is the correct action to take. I do not concur with the Multi-Species Conservation Plan as an acceptable option. It is costly and only extends the review process further. Time has shown that the Church will adopt and voluntarily abide by reasonable mitigation measures. To subject the Church to a continuing level of review that no other landowner in this area is subject to is not reasonable.

The DSEIS is very balanced, professional and comprehensive. I would like to submit the following comments on specific sections on the DSEIS for your consideration.

1) Mol Heron Creek Cutthroat Trout

What is apparent after studying the DSEIS and the DEIS is that our knowledge of the Cutthroat fisheries is fragmented. Some areas are well studied, others not at all. Yet an overall picture can be seen.

The Mol Heron fits into a much larger region-wide situation of the declining numbers of Yellowstone Cutthroat Trout. The MDFWP, the USFS (DSEIS pg 3-27) and the Yellowstone Cutthroat Trout Working Group (DSEIS pg 4-20) have actively studied the region and have attempted to turn the tide for the Cutthroat.

The DSEIS recommends that a baseline of data be collected for the Mol Heron, especially the upper reaches (DSEIS pg 4-15) This is a good suggestion. Indeed many other streams also don't have baseline data for either part (ie. Fridley DSEIS pg 4-16) or all of the stream (ie. Trail DSEIS pg 4-17). The Church as landowner should not have to pay for this study anymore than any other landowner has to. These studies are ongoing, throughout the region and being done by recognized agencies and associations. I saw no instance cited of a landowner doing any of these studies.

The previously mentioned groups have both the funds and expertise to conduct these studies. These studies should be conducted by a recognized professional biologist from the Montana Department of Fish Wildlife and Parks, not by environmental advocacy groups who often have neither the formal education or field training to conduct a rigorous and consistent study.

If a study of the Mol Heron does come to pass, the presence of working aquatic biologists conducting studies on the Ranch will be a learning opportunity. I know of at least one student at the Thomas Moore School who wants to be a marine biologist. If we could be notified in advance of the field studies, possibly students could visit the biologists doing their work and see how they do samples. Often biologists are quite willing to explain their work to an interested group of students. I went out on a research vessel with my dad when I was in high school and had an opportunity to see a lot of biologists and their work first hand. It had a lot to do with my eventually going on to get my marine biology degree.

These studies are only meaningful over time, of course. A one time study does not tell too much of a story. Any data collected needs to be compared to data from other creeks. These creeks also need their studies done.

Of the factors that would be detrimental to the Cutthroat (DSEIS pg 3-27), the Church has only partial control over some of them and none over others. In areas that the Church has control of, it has often been of benefit to the trout in the long run. (DSEIS pg 4-18 and 4-19). The Church has maintained an in-stream flow for Reese Creek, does not de-water the Mol Heron (DEIS pg 40), and has fenced off their sheep pens from the banks of the Mol Heron. The process of Cutthroat/Rainbow hybridization, though unfortunate, cannot be changed by the Church's actions.

The DSEIS recommends a catch and release program on the Mol Heron during Church conferences (DSEIS pg 4-15). The Church currently has a voluntary one fish per person limit during conferences that is recognized as being far more stringent than the existing DFWP regulations (DSEIS pg 3-30). To impose a special catch and release program for the Church raises several problems.

The first is that it is unfair to impose a special restriction on one landowner and not another on the same creek. The second is the difficult precedent of making a fishing regulation church membership specific. Local residents fish the Mol Heron and Cinnabar Creeks too.

The Mol Heron is actually in very good shape (DEIS pg 34). In looking at all the streams in the area, others would probably be catch and release candidates long before the Mol Heron.

In fact, if every landowner was doing what the Church does (ie. no de-watering - DEIS pg 40, no harvesting, voluntary limits on fishing - DSEIS pg 3-30, use of organic fertilizer to reduce nutrient loading - DSEIS pg 4-18, restoring habitat), then a lot of streams would be much better off. To impose a special restriction on the Church without any factual studies to prompt it is both unfair and unwarranted. All the streams in the region need to be measured by the same standard.

2) Mol Heron Turbidity '89

The DSEIS proposes that sediment yield in the Mol Heron could increase due to the burning of ground cover in the '88 fires in Yellowstone National Park (DSEIS pg 3-38). Yet the YNP's own post-fire sediment study does not show a significant increase in sedimentation in the Mol Heron for '89 and '90 (DSEIS pg 3-40).

I agree with the DSEIS conclusion and can back it up with what I witnessed during 1989. During '89, I worked most of the summer, fall, and winter, close to the Mol Heron. At lunch, many of us would eat under a large tree close to the creek. We witnessed and discussed the increased turbidity of the Mol Heron that summer. The runoff in '89 was the first since the fires when erosion would be most evident. The creek was flowing from upstream of the shelter so that was not a contributing factor. In any case the summer was dry and there was no runoff. The stream flow was due to snow melt, not to rain runoff. The sedimentation did not subside as it usually does after the first runoff but continued for a good portion of the summer. It was no secret to us that the sedimentation was due to the '88 fires. I am surprised that the YNP Sedimentation Study did not reflect what we witnessed.

3) Mol Heron Turbidity '91

The DSEIS states that little Cutthroat Trout recruitment was documented in '91 due to high sediment loads and debris following intense thunderstorms. I agree with the DSEIS, though this point was disputed at a recent public meeting. During the summer of '91, we received an intense thunderstorm one afternoon. It was very localized ranging from Yankee Jim Canyon to Mammoth. Other parts of the county had rain but not the intense thunderstorms we had here.

In a short period of time, roads were flooded, washed out or blocked. The county roads crew could not handle the simultaneous damage to both the Jardine roads and the Mol Heron/Cinnabar roads that occurred. While some of the county road crew worked to clear the Jardine roads, men and equipment from the Church helped the county equipment operators clear the Mol Heron/Cinnabar Basin roads.

A large pile of trees and debris was washed onto the culvert at the Cinnabar Creek fork blocking and threatening to wash out the road. This pile was cleared and pushed aside where it can still be seen today. Mud slides that blocked the canyon at several points were cleared too.

The men on the county road crew and Church staff who helped can witness that as the DSEIS states, sedimentation in '91 was caused by the intense thunderstorms and the following mud slides, not to any Church projects.

4) Sediment Catchment Techniques: Hay Bales

The DSEIS recommends in a number of places a mitigation measure to prevent sedimentation: hay bales (DSEIS pg 4-15). Bales usually ring a construction site on the downhill side to contain sediment-filled runoff. Often, extra rows are put downhill from a site before a stream as an extra precaution. The Church has used bales extensively with good success. This technique was frequently criticized at a recent public meeting as ineffective. I have first hand experience with hay bales and can testify as to exactly how they work, why they are effective and compare them to other methods, such as filtration fabric or containment ponds.

The bales we used were the common rectangular bales not the round bales or the large format square bales. These bales are heavy and stay put. They are not easily washed away or blown away as filtration fabric would be. Because of its rough surface, a bale tends to matt to the ground easily forming an immediate water barrier. Bales also bond well to each other with their rough surfaces filling any gaps between them.

A bale has a high profile when laid on its side (16" x 18" x 42") and has no problem stopping all but the most severe runoff. Uphill from the bale, runoff is slowed down and pools up. Most of the heavy sediment is dropped by the water. After the runoff has subsided, I have seen the little slopes of sediment on the uphill side of the bales that dropped out of the water once its flow was broken by the bales. This is not as easily accomplished by filtration fabric which is light and has a low profile. This sediment further seals the bale to the ground, preventing loss of sediment. The water trapped uphill by the bale must then flow through the bale to continue downhill. Sediment is trapped by the filtration action of the straw inside the bale. One of the more interesting aspects of hay bales is the propensity for mud, silt and clay to bond to the straw. The organic nature of straw is a greater attractant of silt than are the synthetics that are used in inorganic filtration fabric. The bonding and adhesion between mud and straw has been known since ancient times when they were combined to form bricks. Organic chemistry studies also have shown that organic matter and chemicals in solution have the propensity to be attracted to and bond to clay. This has given rise to the theory that primordial life on the planet started when these chemicals bonded to clay beds. The organic nature of the hay bale makes it far superior for sediment entrapment than a synthetic material. A bale has a tremendous holding capacity for silt. I have not seen a bale totally saturated with silt, just the bottom few inches.

In addition to entrapping sediment, the straw in the bale also absorbs water. It both swells to fill in any gaps between bales and adds weight, further holding it to the ground.

The bale is able to retain its shape over several years and is surprisingly durable. The spring after a bale is installed, the seed in it will start to sprout. Seeds on the bottom will root, further bonding the bale to the ground. Seeds on the side and top sprout shoots causing the bale to blend into the surrounding vegetation better. The bale also contributes to re-vegetating the immediate area with its seed.

When a bale is eventually removed, it often breaks apart leaving pieces behind. This is no problem. Because the hay is organic, it eventually becomes one with the soil again. This is not the case with filtration fabric. All pieces of it have to be removed as it will not easily break down. Cleanup can be a mess with sodden fabric tearing apart and having to be dug out. Buried fabric could be overlooked and left to contaminate the soil.

Hay bales are common, easy to produce and relatively inexpensive. The advantage to this is there will be no hesitation to use the bales when needed and extra if necessary. There may be some hesitation to use the more expensive filtration fabric in all situations, leading to potentially insufficient coverage.

Sedimentation ponds are only needed for large volumes of water as in gravel wash plants. To contain rain water runoff at construction sites, the application in this case, hay bales are not only adequate but the superior method.

5) Historical Activities in Mol Heron Drainage

In section 3.2.2.1, the DSEIS correctly states that "Historically a great deal of development has occurred in the Mol Heron Drainage." Most of the material in that section comes from the Doris and Bill Whithorn's book A Photo History of Aldridge.

There are other activities in the Mol Heron Drainage not listed in this section. This will help give a more complete picture of the extent to which the Mol Heron Drainage was developed in the past. About a mile south of the Taylor Ranch, where the present conference site is, was a temporary school and dormitory house. The children from Aldridge were moved here for quarantine during an outbreak of disease, until it was safe for them to return. It was active for about a year and a half. The remains of these two buildings are there today.

There was extensive logging in the Mol Heron Drainage. Stumps are seen throughout the west slope of the Heart and on the benches on the east slope. Remains of two, and possibly three saw mill sites can be found on the east slope. One is only a short distance up the Maitreya Mountain (Deaf Jim Knob) road. The second, much larger site, is about a 45 minute hike up the Maitreya Mountain (Deaf Jim Knob) trail, that starts at the south end of the conference site. A picture of what probably was one of these saw mills is found in the Whithorn book. The sites are identified by the large piles of discarded slab lumber.

6) Effects of Spring Creek Site on Wildlife

Overall the DSEIS comments on wildlife are balanced and measured, and indicate a good deal of thoughtful research (DSEIS section 4-2-1). It has significantly expanded on the material in the DEIS.

Recent comments at the public hearings indicate a concern that the Spring Creek site will occupy vital wildlife habitat and block migration routes. The data and conclusions in the DSEIS do not support these claims.

A. Pronghorn

It must be remembered that the Pronghorn that use the Church lands are but a portion of the total Yellowstone herd. A portion of the herd goes to summer range at higher elevations (DEIS pg 20). Another portion have decided to live on the winter range along the Yellowstone year round. This is attributed to the abundant forage on the ranch.

When I first came to the Royal Teton Ranch over 10 years ago, it was rare to see a Pronghorn on Church property. The single Pronghorn that came to our fields occasionally was such a rarity that we even gave him a name. I've seen the herd increase to the levels it is at today (DSEIS pg 3-20).

The range for Pronghorn is indicated to extend to Cutler Lake (DEIS pg 16), and on bad winters even north of Yankee Jim Canyon. I have never seen Pronghorn north of the Mol Heron, and rarely north of the Slide. I would consider the main Pronghorn range to be the west side of the river from Gardiner to the Slide.

The DSEIS correctly notes that the Pronghorn on the Ranch graze on the west side of the County road (DSEIS pg 3-20). In that Spring Creek will be on the east side of the road, this will not affect the Pronghorn. The west side of road will house the sewage treatment plant and forage crops irrigated by reclaimed water (DEIS pg 52). Forage crops are what brings the Pronghorn to the Ranch, so this development will be welcomed by them.

What is missing from the DSEIS assessment is why the Pronghorn have left their traditional winter range south of the Ranch inside the Park over the last 10 years. Besides the obvious growth of the herd is the inability of the Stephens Creek lowlands to sustain the present wildlife population.

The area north of Gardiner to the present Park boundary was acquired in 1932 by YNP. At the time, it was a ranch with the land cleared for crops and was flood irrigated. The old ditches can still be seen today. The land was also the former site of the town of Cinnabar, the railroad terminus before the line was extended to Gardiner. The Gardiner Cemetery is also there as well as a Yellowstone Park staff housing area. There are several reasons the Stephens Creek area is not able to sustain the existing wildlife populations even though it may have been Pronghorn range prior to the 1870's (DEIS pg 20).

1. The Stephens Creek area is not native rangeland but abandoned farmland. There was apparently no effort to restore the farmland to rangeland except to remove the buildings. It takes effort to make rangeland into farmland. Without a corresponding effort, farmland does not revert to rangeland on its own.

2. The native bunch grasses present 100 years ago have been replaced by less palatable grasses and shrubs (DSEIS pg 3-19), reducing the range capacity of the land.

3. The land is overgrazed by elk, pronghorn, mule deer and bison. Too many animals on the same land depletes its ability to grow back. There are two indicators that show the extent of the over-grazing. Across the County road from the Gardiner Cemetery are some fenced-in areas. More than likely these are rangeland control samples to preserve a section of range that would not have any grazing on it. This allows a comparison to see how much the land is grazed. It's easy to see the grass is grazed right down to the ground outside the fence and grows to about 8" or more inside.

   Further evidence of over-grazing is seen in the pedestalling of the grass tufts. Because the grass tufts are so continuously grazed, they cannot propagate out from the main tuft. The area around the tuft is bare and erodes, leaving the tuft on a slight pedestal.

4. There is apparently little tree regeneration occurring at Stephens Creek. Trees and shelter belts could help hold water in the rather arid grassland, increasing its carrying capacity. Overgrazing also suppresses tree growth. We found at the Ranch that small tree saplings we planted by the hundreds were eaten right up by deer. The only trees that survived were those that were either fenced or already tall enough to have their foliage out of reach of the grazing wildlife.

5. Loss of beaver in the Yellowstone valley between 1830 and 1860 and later had far reaching effects (DEIS pg 83). The beaver is a keystone species that completely alters the hydrology of the land (FEIS pg 306). With its loss, it is hard to accurately claim this land as historical grazing land in that the lands carrying capacity is so altered from its original condition.

There should not be any restrictions on Church land due to either the Pronghorn's grazing or genetic composition because:

1) The grazing land near the Ranch is only wintering range. A portion of the herd goes to the Lamar Valley for the summer.

2) The movement on to Church land is a recent phenomenon and acts only as a supplement to the traditional winter range.

3) The basic problem is not the forage available on Church lands but the over grazing and lack of carrying capacity in the Stephens Creek area.

Any mitigation measures on the Church regarding pronghorn would not help because the cause of the problem is outside of Church lands. I recommend that no further mitigation measures be placed upon the Church regarding wildlife. Instead, I suggest the following improvements be made to the Stephens Creek area.

1) Carrying capacity of the land needs to be determined for all species. The herds then need to be thinned to prevent further destruction to the rangeland and foliage by overgrazing. This thinning should occur in Park grazing land. By the time animals leave the park the problem has progressed too far.

This is a controversial proposal but a number of suggestions have been made in the last few years to allow native american indians to thin problem herds inside the Park. The indians historically were the wildlife managers in the park, where they both lived and hunted. During the recent debates on bison control, some of the tribes became involved in harvesting the bison meat.

This should be expanded so the native tribes can use both traditional and conventional hunting to thin the herds. For a consistent park-wide program a heritage center could be considered in a central park location. Here traditional native hunting means, not often used today, could be developed and rediscovered. Here too, conventional wildlife management techniques and studies could be carried out to balance herd size to the land's carrying capacity. The blending of traditional Native American hunting techniques with contemporary wildlife management may be the most reasonable long range solution to the Park's over-population by wildlife.

In that species are actually being lost in the Park due to excessive over-grazing (FEIS pg 306), we need to creatively explore solutions to restore the Park wildlife populations to a reasoned point of balance. The Park has also proposed a variation of this proposal in a recent study (DSEIS pg 4-7).

2) Plant and restore native bunch grasses to the Stephens Creek area to increase its carrying capacity.

3) Irrigate the Stephens Creek area to allow forage to grow. The pronghorn are already living on domestically cultivated forage. As well as irrigating by conventional wheel lines the re-introduction of the beaver to Stephens and Landslide Creek should be explored. Both USFS and the BLM have used transplanted beaver to restore damaged riparian areas (FEIS pg 306).

These measures may help restore the Stephens Creek area to a state where they can accomplish what they were set aside for, to provide a feed range for elk and antelope (FEIS pgs 161-162 and 269-271).

4) Plant and restore some trees and shelter belts to help the soil retain its moisture.

Through somewhat far afield from the scope of the DSEIS, I have made these suggestions to illustrate that the burden is not upon the Church to either solve or be penalized by excessive mitigation measure for problems thrust upon it from the outside. The actual cause of the problem should be identified.

The mitigation measures established in the FEIS are fair and no additional measures in the form of a MSCP need to be imposed.

B. Elk

The DSEIS (pg 4-7) correctly notes that 85% of migrating elk travel along the east side of the Yellowstone River and do not cross Church lands. The remaining 15% do migrate over Church lands on the west side. Having both hunted and hiked extensively on the Church property, I've noted that the elk migration routes in the north-south direction are along the ridge line from Little Joe Lake down. Though elk do then branch off east-west to forage down draws and smaller ridges, this high country north-south route is their main thoroughfare. This is so far above any proposed development as to be unaffected.

During cold or excessively snowy winters, some elk do migrate out from the Stephens Creek lowlands. Like the pronghorn, these elk usually forage on the west side of the road where little development is planned, and often don't stay long.

The proposed Church development will not have an adverse effect on the elk population so no further mitigation measures are needed.

7) Shelter Belts and Fire Loading

The DSEIS recommends a vegetation buffer zone between Golden Age Village and Fridley Creek (DSEIS pg 2-3, 4-16). This is a good idea, but should be tempered for fire safety. Any addition of foliage or brush to an area increases its fire loading (ie. the amount of combustible fuels available to a potential fire). The danger exists when excessive foliage is close to structures. The foliage would transfer a fire from building to building or from foliage to buildings in case of a wildlands fire.

This concern is greatest for lots 27 through 32, those closest to Fridley Creek (see DSEIS pg 1-38). I would suggest that any planting should be done with native species or species that do not produce excessive dead wood. Occasional thinning of dead wood may be necessary to reduce fire loading. Any plans to add foliage close to structures may need to be reviewed by the Royal Teton Fire Department to ensure adequate spacing and exposure protection in the event of a wildlands or structure fire.

8) Park County Crime Rates

Section 3-4-11-3 draws no conclusion about an increase in crime in Park County during the 1980's. However, the included comments by the Sheriff's Office (DSEIS pg

3-104) infer the Church may have had something to do with it.

Figure 3-7 shows that both Park County and Livingston had a big jump in crime rates in 1981. Livingston's climbed in '82 and '83 and has not returned to pre-'82 levels. Park County's jump of '81 did not increase but was sustained throughout the decade. Livingston shows two jumps in '82 and '83 and in '85 - '86.

In '81, there were 12 Church staff and in '82 there were 33 (DSEIS page 3-94). With the Church based in South Park County it probably would have had no effect on Livingston crime rates. It is hard to imagine that 12 people would have caused the almost four fold jump in crime rates in Park County in '81.

The answer I believe can be found in Table 3-13 "Park County - Employment by Major Industry (DSEIS pg 3-96)." An event that had a very profound and far reaching effect on Park County was the closing and pull out of Burlington Northern. Livingston's original reason for being was the establishment of the BN Repair Yards. When BN shut down in stages during the 1980's, it caused an upheaval in both Livingston and Park County.

The periods of a net loss of transportation and utility jobs can be derived from the chart. There are 3 main periods. During '81 through '83, there was a net loss of 374 jobs. From '85 to '87, 185 jobs were lost. 1988 through '90 showed a loss of 137 jobs. Overall there was a net loss of 645 transportation/utilities jobs in Park County during the 80's.

We can expect certain things to occur during these periods, increased unemployment, increased use of welfare services and probably an increase in crime. We see in Figure 3-7 that the increase in crime in Livingston corresponds almost exactly to the periods of net loss of railroad jobs. A more overall effect is felt in Park County by the sustained increase in crime in 1981. An additional contributing factor to the County's increase was probably the decrease in the Sheriff's staff by four after 1980 (DEIS pg 110)

In '86, when the Church moved their headquarters to Park County, Church staff population increased to current levels (DSEIS pg 3-94). Both Park County and Livingston do not show a crime increase for that year.

There is a notable but temporary increase in Park County crime rates in '88 and '89, though the level drops off to pre-'87 levels in '90 (DSEIS pg 3-102). Because of the temporary nature of this increase, only closer inspection of individual crime reports from that time period would show how many crimes Church members were involved in and if the crimes were committed by or to Church members.

9) Park County Welfare Statistics

The welfare statistics show a similar pattern to the crime statistics (DSEIS pg 3-116). From 1981 to 1986, Park County has a greater increase in most welfare areas than the rest of the state. After '86, the county levels off and in the case of food stamps and aid to dependent children has a rate of growth slightly lower than the rest of the state.

More than likely this increase is due to the layoff at BN in Livingston in the early 80's. The movement of the Church's headquarters in 1986 did not unduly increase the welfare rate of increase.

The statement made in the EIS that, excluding medical payments, Park County welfare benefits have grown at nearly double the state rates in the last ten years can be somewhat misleading. The medical benefits grew more at the state rate and thus even out the figures. The bulk of the increase is obviously prior to 1986 and is not mentioned. The whole picture is missed when one set of figures is pulled out to make such a statement.

The following are my calculations for rates of increase of welfare benefits derived from Table 3-20 (DSEIS pg 3-117).

	Food Stamps		ADC		Medical		Total	
	Park Co.	Montana	Park Co.	Montana	Park Co.	Montana	Park Co.	Montana
'81 to '86	1.76	1.26	1.58	1.10	1.06	1.08	1.38	1.15
'86 to '92	1.16	1.17	1.23	1.26	1.72	1.58	1.40	1.35
'81 to '92	2.05	1.47	1.96	1.39	1.83	1.72	1.93	1.57

10) Business Operations

A statement by Richard Parks is quoted in Section 3-4-7-1 of the DSEIS (pg 3-83). This statement is also referred to in other sections of the DSEIS. This statement is highly similar to the ones made by Robert Barbie in the FEIS (pg 33-35). Both statements are responded to in detail in the FEIS by Edward Francis (pg 144-151).

11) A Visitor to the Ranch

A few years ago a man stopped by the Ranch on business. He is a successful businessman from Billings, managing a state-wide chain of stores. One of the reasons Jack stopped by, was to see how the Ranch was doing. He was raised in Gardiner and had fond boyhood memories of hunting here in the hills with his dad. He also worked as a ranch hand here before the Forbes ownership and had lived in the present Ranch Office Blue House. As he saw the plowed fields, the crops, the fences and building improvements, he said over and over, "You're doing something with this ranch." At one point he exclaimed in disgust, "Forbes didn't do anything with this ranch, he let it go to seed. But you are doing something with it."

Jack had done something constructive with his life. He appreciated and understood those who did the same. When he saw someone else's work he felt a feeling of mutual satisfaction in the accomplishment. He saw work as adding to the land, not depleting it.

I have found in the decade I've lived here that most Montanans feel the same as Jack does.

The DSEIS is comprehensive and complete. The review process should now be concluded, and the Church be permitted to proceed with the proposed projects this spring.

I hope these comments have been of some benefit to you. Thank you for the opportunity to comment.

Yours Truly,

Craig Woodland

Craig Woodland
BSC - Marine Biology

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CHAPTER 4

APPLICANTS RESPONSE AND ATTACHMENTS TO WRITTEN COMMENTS

4.0 CHAPTER 4 - APPLICANTS RESPONSE AND ATTACHMENTS TO WRITTEN COMMENTS

Royal Teton Ranch
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March 3, 1993

RECEIVED
MAR 05 1993
MDHES
Environmental Sciences Div.

Mr. Steven L. Pilcher, Administrator
Environmental Sciences Division
MONTANA DEPARTMENT OF HEALTH AND
ENVIRONMENTAL SCIENCES
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Helena, Montana 59620

Re: Response to DSEIS Public Comments

Dear Mr. Pilcher:

We have reviewed the written comments and public testimony on the Draft Supplement Environmental Impact Statement (DSEIS) for the Church's proposed projects in Park County received by the Department during the extended public comment period ending on January 19, 1993. The following constitutes our response to those comments.

The primary purpose of soliciting public comments under a MEPA process is to allow the reviewing agency to identify substantive issues that may have been overlooked in the draft stage. In reviewing the volume of comments received by the Department, few substantive issues arise that were not already addressed in the DSEIS. What does emerge is a pattern of most commenters falling into two categories: (1) Those who wholeheartedly support the Church's right to make reasonable use of its property and who generally favor the Department's findings and conclusions in the DSEIS (including the selection of Alternative 3), subject to reservations about the nature and extent of some of the proposed mitigations; and (2) Those who adamantly oppose the Church and the results of the DSEIS, and who want this MEPA process to be used as a means of blocking the Church from being able to proceed with any of its planned projects.

Some commenters expressed a dislike of the Church and its representatives and/or members, often based upon religious, philosophical, social or other similar grounds. A number of accusations are made without any factual basis of any kind or based upon personal opinions. Other charges are made about matters wholly unrelated to the SEIS. We find these comments to be irrelevant to the process. Attempting to determine the "goodness" or the "badness" of an applicant or its supporters or critics is not the purpose of an EIS, nor does MEPA involve a public voting process.

One opponent put it rather succinctly in her written comments when she stated that "although the Impact Statement is impressive it means nothing to any of us if the C.U.T. is allowed to go on with their entire program of church improvements" (Patricia M. Miller). It appears from a review of the public comments that a number of the opponents are more interested in simply blocking the Church from using its land than they are in honestly assessing the environmental impacts of the projects as set forth in the DSEIS.

It is not our intent, nor do we have the time or space, to respond to all unfounded allegations and erroneous notions about the Church. Therefore, we will not attempt to do so. However, it should not be inferred that by not responding to every adverse claim we are agreeing with or consenting to those renditions of the facts--because we are not.

It takes little effort to sling mud on a wall and a great deal of work to try to clean up the mess. We are electing to leave these critics with the bulk of their mess and to confine our comments to issues to which responses have not been previously made or that may be of particular relevance in the completion of the SEIS.

While the responses are given in reply to specific comments made in writing to or transcribed by the Department, our discussions are intended to be issue oriented. Specific comments were selected for response in the order that they appeared in our review of the letters and transcripts. Once an issue was addressed in these responses, similar comments made by others were deemed to have been responded to already.

A. SPECIAL-INTEREST ENVIRONMENTAL GROUP SOLICITATIONS.

Many of those who criticized the results of the DSEIS did not appear to have read the document at all, but seemed to base their comments primarily on the recommendations of several environmental special-interest groups. While not unexpected and for the most part not substantive, we feel it is appropriate to respond for the record to the published recommendations of the environmental organizations rather than the uninformed comments of several dozen of their constituents that were obviously based on those recommendations.

On January 8, 1993, the Greater Yellowstone Coalition ("GYC") published a bulletin entitled ECOACTION which made statements concerning the DSEIS, the Department and the Church and solicited letters from constituents (copy enclosed). Shortly thereafter, the Headquarters Group of the Sierra Club published a postcard to members with abbreviated but nearly identical statements and solicitations (copy enclosed). These published statements and recommendations, which resulted in dozens of nearly identical written comments from constituents of these organizations, are the basis of the following responses*:

1. The following statement is made about the DSEIS in the ECOACTION bulletin: **"Fails to provide protection for Yellowstone's geothermal resources. Even though CUT has made it clear it intends to develop a geothermal well on its property, the State fails to adequately address the issue in the EIS. The state ignored a National Park Service analysis that pumping from a geothermal well could have irreversible impacts on Yellowstone's geysers. Further, the state fails to acknowledge that when CUT pumped hot water from a well, it was in violation of an earlier agreement with the state."**

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*Note: We do not take issue with the right of these groups to communicate with their memberships. The Church has the same right. We do take issue with the factual misstatements expressed in these solicitations, which were then repeated either in whole or in part by many of their members.

The DSEIS was properly limited to a presentation and analysis of available scientific data on the subject of the use of the Church's geothermal well. The Church's position on the interpretation of the prior Mitigation Agreement with the Department has been documented in previous correspondence. Much as these special-interest groups might like it to be, an EIS is not a vehicle for unilaterally revising state and federal laws or established public policy. The DSEIS did document the unsuccessful efforts that have been made to enact federal laws to limit or prohibit geothermal development in the area.

In its written comments, the GYC refers to an effort by the Montana Reserved Water Rights Compact Commission (the "Commission") and the National Park Service ("NPS") to negotiate a reserved geothermal water right for Yellowstone National Park. It should be noted that these negotiations are unresolved and any agreement entered into by the Commission must be enacted by the state legislature into law before it becomes effective. Proposed legislation and uncertainty over future rights and procedures are part of the reason the Church has not filed any applications for water use permits or changes in use that could be analyzed in the DSEIS.

The NPS "Impact Analysis" referred to by the GYC offers no additional scientific data from the USGS study and it does not conclude that pumping from the Church's geothermal well would affect Yellowstone's geysers or thermal features. Rather, the analysis sets forth a largely anecdotal history of impacts to geyser fields in other parts of the world based upon large-scale development in close proximity to these geysers.

Specifically with regard to the Church's single well, Yellowstone Park Superintendent Robert Barbee has said, "It's not one well but the precedent of starting to drill holes into these aquifers. It's the next 10 wells, 20 wells, 200 wells that people keep punching" (see enclosed copy of article from Bozeman Daily Chronicle, 6/30/92). This position was summarized in a later article as follows: "Yellowstone Superintendent Bob Barbee said earlier this year the Church's well itself may not have an impact on Yellowstone but it sets a precedent for other drilling in the area" (see enclosed copy of article from Bozeman Daily Chronicle, 9/14/92).

It is well recognized that Yellowstone Park has lobbied for legislative prohibitions upon geothermal resource use in a wide area around the park, as has the GYC. The NPS "Impact Analysis" is essentially a recommendation for congressional action, not a scientific report. As such, it is not of any significant value in enhancing the data and analyses set forth in the DSEIS other than to put the public on notice that Yellowstone Park opposes the Church's use of its well primarily on grounds of alleged lack of scientific knowledge and not wanting to establish a precedent.

In connection with this, there is one part of the NPS "Impact Analysis" that the GYC would probably not like to see included in the SEIS. In the transmittal memo dated June 21, 1991 accompanying the "Impact Analysis" to the Director of the National Park Service (copy enclosed), Superintendent Barbee states his recommendation that "no subsurface geothermal development be permitted within the KGRA. This would require congressional action that would constitute a federal 'taking' of the geothermal resource in the KGRA." While the GYC wants to see geothermal uses banned, it has repeatedly argued against the legal recognition of any resulting loss of property rights and any compensation being given to affected landowners. This is part of the reason for the failure of any legislation to pass to date.

An EIS is not a forum for deciding whether an owner's property is to be taken by the government any more than it is a forum for determining whether compensation is to be paid and in what amount. Such decisions are best left to legislatures and the courts.

Finally, it should be noted that the referenced USGS report included substantial participation by Yellowstone Park researchers. One of the five analytical chapters included in the study was contributed by Yellowstone Park employees ("Soil Mercury and Streambed-Temperature Anomalies in the Norris-Mammoth-LaDuke Corridor"). Their data and analyses went into determining and were not in conflict with the final conclusions of the report. The GYC failed to recognize this fact in its published recommendations and in its written comments.

The DSEIS does not fail to provide protection for Yellowstone's geothermal resources because no threats from the use of the Church's well are indicated by the scientific data. Should the Church propose additional use of its well, this would either be significantly below the threshold indicated by the USGS for any possible impact (140 gallons per minute of sustained production) and/or subject to state permitting and further environmental review, as necessary.

2. The following statement is made about the DSEIS in the ECOACTION bulletin: **"Fails to evaluate alternatives to CUT's proposed developments. One fatal flaw of the EIS is that there is no consideration of alternatives that could mitigate or possibly eliminate some of the projected impacts to wildlife and fisheries. The document includes no alternative locations for the illegally constructed 756-person bomb shelter complex along Mol Heron Creek, or the religious sect's headquarters at Spring Creek along the Yellowstone River. The state contends that evaluating such alternatives would be inappropriate because they are 'divinely inspired.'"**

There are both legal and practical reasons why these suggestions are not valid. First and foremost, the SEIS is evaluating private projects on privately owned land. In this case, the applicant is a religious organization that has chosen these sites for religious as well as other reasons. The Church has proposed to use the sites for the reasons indicated, and it has not identified or proposed any alternative sites for consideration.

MEPA is not a siting act and the Church is not a public agency. It is up to the Church to develop plans and proposals for the use of its property, subject to review and analysis of the environmental impacts and other permitting requirements. There is no precedent for the government to affirmatively substitute its planning, or the planning of special-interest groups, for the use of private property. Local land use planning is the only procedure established under law to impose planning on private property, and even then such planning takes the form of restrictions on the use of certain property rather than affirmative directives on what property should be put to particular uses by an owner.

The Church has chosen the sites that it wishes to propose for the uses indicated. In doing so, it has considered a range of factors that have led to the selection. No local land use plan currently exists. Were a detailed county master plan to exist, the result would still be no different. A private applicant is entitled to apply for review and receive in return either an approval, approval with conditions, or disapproval.

Even in the case of a public agency's proposed use of public land, the result is not significantly different. While the public may be involved in commenting on alternate sites, it is the agency that determines what the alternative sites will be and that conducts the evaluations and makes the final selection for the use of its own land.

Removal and/or re-siting of the Mol Heron shelters is not a reasonable alternative for a number of important reasons. The project has already been essentially completed and the project area reclaimed. Removal and/or re-siting would require two additional large construction efforts and associated disturbances. This alone compared to the minor amount of construction related to completion of septic systems and fuel tank installation clearly tips the scale in favor of Alternative 3. As if to illustrate the point, the representative for the Northern Plains Resource Council (Richard Parks) stated in his written comments that "I recognize that dismantling the existing shelter would carry with it a heavy cost in impact."

The shelters were not illegally constructed as contended by some opponents. This is aptly documented in the Partial Consent Decree approved by the Court as well as the permits that were received by the Church. No significant environmental impacts have been identified that cannot be mitigated by leaving the facility in place, subject to the restrictions identified in the Partial Consent Decree. Therefore, closure in place, as suggested by some, is also not a reasonable alternative.

A number of the public comments have suggested siting and/or consolidating the Church's headquarters facilities planned for Spring Creek at either the East Gate or the Ranch Headquarters areas. Such an alternative is both unreasonable and unfeasible as discussed below.

In its written comments, the Northern Plains Resource Council stated that "the First Judicial District Court found that '...it certainly does not make any sense to consider locating their proposal on other Park County properties because the Church feels that the RTR-S property is divinely inspired for their purpose.' It is important to understand the context of this conclusion. This decision applied only to those actions contemplated by the original EIS."

The siting of the Spring Creek Headquarters of the Church is an action that was contemplated in the original EIS. The environmental factors affected by the location were fully discussed in the original Draft EIS (DEIS) and Final EIS (FEIS) and were fully reviewed by the Court. The DSEIS has found and the public comments have disclosed nothing that is significantly different from what was identified in the original EIS. Consequently, the changes proposed for that location have not significantly altered the conclusions.

During the original EIS process, objections were raised to the projects at East Gate (Corwin Springs) and the Ranch Headquarters (mouth of Mol Heron Creek) by many of the same critics who now urge the Department to require the Church to move its headquarters to those locations. At that time many of them demanded that all of the existing and proposed facilities be moved to other properties of the Church out of the Corwin Springs area (which the Court rejected). It is difficult to imagine that the same parties would now find no significant objections to the siting of the Church's headquarters at Corwin Springs (East Gate) or at the mouth of Mol Heron Creek (Ranch Headquarters).

For example, Peter Fonda stated in his testimony at the public hearing in Livingston that "I find it very offensive or worrisome that the East Gate Work Camp is going to be two hundred (200) feet from the river's edge." In fact, most of the objections raised about the Spring Creek location would be more valid for siting the facilities at the two other locations now proposed by some of the opponents (i.e., views from highway and river, proximity to river and creek, possible impacts on water quality, fisheries, etc.).

But even more importantly, relocating the planned Spring Creek facilities to East Gate and/or the Ranch Headquarters is physically unfeasible. The Spring Creek plan requires 75 acres for the siting of the various church, school, administrative and residential facilities, plus the space required for the potable water and sewage treatment systems (storage reservoir, treatment lagoons, etc.). An examination of the map shows that only about 25 acres of vacant land are available at the Ranch Headquarters (tree farm area) and only about 40 acres of vacant land are available at East Gate (some of which is located in the floodplain of the Yellowstone River) that is owned by the Church. Neither area is even close to being sufficiently large on its own to contain the Church's headquarters. Even in combination (65 acres) the areas are not large enough for the facilities (not to mention the space needed for two potable water and sewage treatment systems).

For all of these reasons, the alternatives already examined in the DSEIS are the only reasonable and feasible alternatives that have been identified. (See also the discussions in Response Nos. B.1 and B.2 in regard to related comments submitted by Yellowstone National Park.)

3. The following statement is made about the DSEIS in the ECOACTION bulletin: **"Fails to call for effective mitigation measures that would protect the area's fisheries and wildlife. Although sedimentation from the development threatens fisheries in tributaries to the Yellowstone River, the state only relies on placement of hay bales to control sedimentation, rather than more effective measures such as sedimentation filters or ponds. In addition, the state calls for a Multiple Species Conservation Plan if future developments are considered. Instead, the Conservation Plan should be made mandatory and implemented immediately to protect the herds of bison, elk, pronghorn, deer, grizzly bears and other wildlife that migrate out of Yellowstone Park and frequent the area."**

Although lines of straw bales firmly staked to the ground have proven effective in preventing excess runoff, erosion and sedimentation on other projects, no indication is given as to why this measure would not be considered to be effective for the Church's projects. The lines of straw bales used on the Mol Heron Shelter Project effectively prevented any significant quantity of sedimentation from reaching Mol Heron Creek for over 18 months of construction and reclamation work. The amount of additional disturbance that will be required for the Mol Heron site with the remaining construction is only a fraction of the disturbance that has already been undertaken and fully reclaimed.

Straw bales are, in effect, sedimentation filters. The Montana Department of Transportation uses straw bales extensively to control sediment transport both during and after construction on many of its projects. We can see no reason why matting or other filter material would need to be purchased when the straw bales provide a barrier that is just as good or better. Due to the orientation of the construction site to the creek, settlement ponds could not possibly be used at the Mol Heron site. Use of settlement ponds at the Spring Creek or Golden Age Village sites is unnecessary and would only entail more disturbance than the construction project currently calls for. However, the Church is willing to consider any reasonable measures that are needed to prevent sediments from reaching the Yellowstone River and its tributaries.

Evidently, the GYC envisions a multiple species conservation plan to be some sort of state-mandated conservation easement imposed upon private property. This kind of approach would likely be a taking of private property requiring just compensation. Development of a multiple species conservation plan by its very definition is meant to be a voluntary process that requires the participation of numerous local, state and federal agencies as well as multiple private owners. It is not a measure that can simply be imposed upon a private owner as a mega-mitigation that is not directly related to the proposed projects under review, but pertains only to possible future projects.

The concept of a multiple species conservation plan as currently sent forth in the DSEIS properly recognizes the voluntary nature of the process and the substantial expenditure of time and money it would take to produce such a plan. The DSEIS correctly observes that should the Church become a participant in such a process that results in the adoption of a plan, then costly environmental reviews for possible future projects might be avoided.

4. The following statement is made about the DSEIS in the ECOACTION bulletin: **"Fails to adequately evaluate the effects of CUT's developments on water quality. Of particular concern is Mol Heron Creek, one of the few remaining viable spawning streams for Yellowstone Cutthroat trout. Adjacent to the creek lies the bomb shelter complex, and the site where up to 6,000 people gather for a summer conference."**

This statement fails to recognize the extensive information and analyses contained in the DSEIS on potential effects to Mol Heron Creek and the proposed mitigation measures that are recommended as a result. The GYC erroneously depicts the Church's conference activities and shelter complex as proposed future projects, rather than facilities and activities that have existed at the site for from four to eleven years.

5. The following statement is made about the DSEIS in the ECOACTION bulletin: **"Despite a history which includes a 33,000 gallon fuel spill at the shelter complex, the Montana Department of Health is abdicating its responsibility by failing to require an adequate sewage system at the bomb shelter. The proposed sewage system is grossly under-designed and destined to overflow, spilling raw sewage in Mol Heron Creek."**

The statements concerning shelter sewage systems are grossly uninformed and are not based upon any factual information or analysis. A recent inquiry has revealed that the GYC has not even examined or evaluated sewage system plans and specifications for the Mol Heron shelters. These systems are adequate as designed, meet all required standards and regulations, and will fulfill their intended purpose.

B. GOVERNMENT AGENCY COMMENTS.

1. The following statement is included in the comments submitted by Yellowstone National Park (YNP): **"Alternatives should be included which examine different locations for the proposed developments within the RTR-S property....[P]resumably, the entire RTR-S property is 'divinely inspired,' and alternative locations within the property could be examined....[O]ne example of an alternative siting would be not to move the publishing facility from Livingston to the Spring Creek site...."**

The issue of alternative siting of the Church's headquarters in locations other than the Spring Creek site has been previously discussed. However, we find it interesting that YNP officials place themselves in the position of knowing what is and is not "divinely inspired." The publishing of religious teachings is in fact an integral part of the Church's spiritual mission and is closely related to the activities carried on at the headquarters location. Weekly services and sermons, Summit University classes, conferences and seminars are the genesis of the teachings, discourses, music and art that eventually find their way into print or tape recording.

The printing and distribution of the Church's teachings is also not severable from the daily activities of the headquarters and staff. They are an essential part of them. The current separation of publishing from the inspirational inception, research, writing, music and art work is a significant inconvenience and causes a substantial amount of unnecessary travel back and forth between Livingston and Corwin Springs. Conversely, no particular adverse impacts or effects have been identified that relate to having the publishing facility as part of the Church's headquarters. Unless such impacts are identified, there is no basis for excluding the activity or of imposing unreasonable mitigations.

2. The following statement is included in the comments submitted by Yellowstone National Park: **"The DSEIS should examine an alternative of consolidating the proposed Spring Creek development with the existing Corwin Springs or Ranch Headquarters developments. The proposed Spring Creek site is located in the middle of crucial winter foraging habitat for migratory wildlife and will have far-reaching impacts on ungulate species. Recognizing this fact and further clustering the housing and work areas into existing developments would lessen future problems for both the Church and wildlife."**

We appreciate the recognition by YNP of the positive actions the Church has taken to mitigate impacts to wildlife and fisheries under the original EIS and of the Church's voluntary agreement to establish a minimum instream flow for Reese Creek. We have, with all due respect, considered this recommendation by YNP as well as others to site the Church's headquarters at the existing

Corwin Springs or Ranch Headquarters areas. However, as previously discussed, these are neither acceptable, reasonable nor feasible alternatives. While it is acknowledged that the winter range areas that lie to the north of Yellowstone Park are an important environmental resource for migratory wildlife, the extent of the resource that is located on the Church's property and the minor effects of the Spring Creek project should be put in the proper perspective.

First, the Spring Creek project was previously reviewed by the DHES at substantially its current size and extent and was challenged in court and upheld. Much of the court testimony focused upon alleged impacts to winter range, and both the Department and the Court found only minor impacts.

Second, while the Spring Creek project will impact a small amount of winter forage area, it does nothing to disrupt or block wildlife migrations and it is not located in a critical corridor. The site is located within an isolated bulge surrounded by a bend in the Yellowstone River on almost three sides and a county road on another side. This area of the river is not used for crossings by migratory wildlife. The area is also not located in one of the most narrow constrictions of the valley as one of the public comments suggested. A glance at Map 7 included in the previous DEIS (page 13) shows that the Spring Creek site is part of one of the wider areas of the valley between Yellowstone Park and Yankee Jim Canyon. Conversely, the alternative sites suggested at East Gate and the Ranch Headquarters are in considerably narrower areas.

Third, there are no threatened or endangered species or populations without adequate habitat that would be affected by the project. As has previously been well documented, the primary problem with YNP's migratory wildlife species is uncontrolled population growth rather than shrinking habitat. Simply put, all the habitat in the world wouldn't be enough if the agency is not able to prevent overpopulation from occurring within that habitat. Burgeoning wildlife populations should not be used as an excuse for excluding human activities from private property. The Church is very sensitive to the needs of migratory wildlife and has no intention of eliminating their habitat or obstructing their movements.

Finally, and most important, the overall impact of the Church's project on the available winter range north of the Park is miniscule. As documented in the Church's comment on the DSEIS dated January 16, 1993 (pages 9 and 10), in 1987 the church owned approximately 4.6 percent of the total winter range for the Northern Yellowstone Elk Herd (both inside and outside the Park). With the sale of the OTO Ranch in 1989, that percentage has declined to less than 3 percent. Using the figure supplied by Houston (1982) of 247,000 acres of winter range for the Northern Yellowstone Elk Herd both inside and outside the Park, the Spring Creek site constitutes less than 1/25th of 1 percent of that winter range. The Spring Creek site constitutes only slightly over 1 percent of all of the Church's land that qualifies as winter range in this area.

To put things in further perspective, very little of the total northern winter range remains in private ownership, most of it being included within Yellowstone Park, the Gallatin National Forest or the recent land acquisitions by the Rocky Mountain Elk Foundation and the Montana Department of Fish, Wildlife and Parks (DFWP). The potential for seriously depleting this winter range through private development in future years is therefore very low.

3. The following statement is included in the comments submitted by Yellowstone National Park: **"As additional mitigation, we suggest that all domestic sheep grazing be restricted to lands north of Yankee Jim Canyon. This would minimize the potential for grizzly predation and, therefore, conflicts with the management of the Church's livestock."**

This recommendation is unwarranted. Due to the adoption of effective management practices, grizzly bear predations have not been a problem with the Church's sheep. These have included maintaining a herder with the sheep at all times in range areas and putting the sheep in a protective corral or electric fence enclosure every night. No predations have occurred for over 10 years since the adoption of these practices.

4. The following statement is included in the comments submitted by Yellowstone National Park: **"There are federal lands to the north and south of the fence,**

and we believe the current fence may violate the Unlawful Inclosures Act of 1885 by 'obstruct[ing] free passage or transit over or through the public lands.' While the fence is not an enclosure, it is an obstruction to wildlife populations moving freely between federal lands."

"Obstruction" is defined as "a condition of being clogged or blocked" (Webster's Seventh New Collegiate Dictionary). No Yellowstone wildlife populations are being clogged or blocked from moving in or out of YNP by this fence. The evidence is abundant that all migratory species are freely moving in and out of the Park in this area in general, and through our fence on the YNP boundary in particular.

As previously noted, the fence has been fitted with the specific features requested by YNP in 1990 to ensure the free passage of migratory wildlife populations (see enclosed correspondence). This is summarized later in the YNP written comments as follows: "In the event the ranch sees fit not to replace the fence we request that all wooden rails be removed from single sections approximately every 100 yards....All 22 existing gates should be left open at least October through April, which includes the major migration times to and from public winter range."

The Church has in fact created the additional openings in the fence and has left them open and unobstructed throughout the migration season each year as requested by YNP. The only time these openings are closed is for a few weeks each year when livestock are present in the adjacent pastures on private land. YNP has not alleged that the steps taken by the Church have not met their specifications or that wildlife have not been freely passing through the fence. We fail to see what further objections YNP could have or what further reasonable mitigations could be undertaken.

5. The following statement is included in the comments submitted by Yellowstone National Park: **"For example, in recent years, a concrete truck overturned on its way to a Church construction site. The concrete had to be dumped on-site in order to extract the vehicle, and the concrete was removed later."**

We are aware of no instance of a concrete truck having overturned on its way to a Church construction site or of the dumping of concrete on-site in order to extract such a truck. Yellowstone Park may be confusing the Church with some other private owner or public entity of which we are not aware. No such incident has occurred on the Church's property.

C. ADDITIONAL SPECIAL-INTEREST GROUP COMMENTS.

1. The following statements are included in the comments submitted by the Gardiner Chamber of Commerce: **"The town of Gardiner also suffers from CUT saying derogatory things about it as a way of saying 'what we're doing isn't so bad, look at how bad Gardiner is.' This is not a neighborly way to be, and, again, it creates negative publicity which is no good for our tourist business. Many chamber members consider it unfair to have to compete with the Ranch Kitchen, CUT's restaurant at Corwin Springs. The organization doesn't have to pay its help a living wage and the Ranch Kitchen operated under the tax exempt status of the Church Universal and Triumphant until 1991. Many chamber members also are frustrated that there seems to be a double standard - CUT is able to go ahead and build projects without first getting the required permits and approvals, whereas the rest of us who are honest and apply first, have to go through the time, expense and uncertainty of the approval process."**

While Gardiner is not an incorporated municipality, the Gardiner Chamber of Commerce has often represented itself as a *de facto* spokesman for the town. Evidently, a few Chamber officials believe they should be able to make derogatory public remarks about aspects of the Church's community without bringing the same or worse conditions into issue literally in their own backyard (i.e., land application of sewage versus Gardiner municipal sewage system leaking into the Yellowstone River, etc.). If this is "not a neighborly way to be," then we suggest (as we have in the past) that Chamber officials try to find a better way to address dissatisfactions about the Church than public statements primarily intended to create media exposure. We have been, and continue to be, willing to have direct contact with any government entity or organization to try to resolve conflicts and misunderstandings.

The Chamber of Commerce appears to have some misconceptions about how The Ranch Kitchen at Corwin Springs is and has been operated. It is operated by a for-profit corporation, prevailing restaurant wages for the area are paid to employees, and taxes on income are paid to the government. Prior to 1991, all income from The Ranch Kitchen was declared as "unrelated income" on separate income tax returns. Prior to 1987, The Ranch Kitchen was owned and operated by a for-profit corporation and all income was declared on tax returns. In short, the restaurant has not competed unfairly with Gardiner businesses.

The alleged "double standard" (i.e., that the Church is able to build projects without obtaining required permits whereas local citizens have to go through the time, expense and uncertainty of obtaining permits to build) is nothing more than ludicrous. First of all, what permits are required for any local landowner (other than the Church) to build something in Gardiner or rural Park County? At most, a local septic permit (granted immediately), a building permit (needed only for commercial structures or more than five residential units), and a state electrical permit (granted immediately). Hookups to the Gardiner municipal sewage and water system have been uniformly granted immediately, even when the system was leaking into the Yellowstone River.

What permits has the Church been required to obtain? All of the same as the other local residents plus State Health Department approvals for water and sewer systems, work camp licenses, two Environmental Impact Statements lasting several years each, and required restrictive mitigations. All of this is because the Church chose to cluster its developments and design larger and more efficient "public" systems to serve these clustered areas, instead of subdividing and spreading their housing and other facilities out like the rest of rural Park County. No other local residents have been required to submit to an EIS or required mitigations of any sort, or to wait for years to get their permits.

2. The following statement is included in the comments submitted by the Greater Yellowstone Coalition: **"Appendix A suggests that the potential number of attendees could approach or exceed the entire population of Park County. MEPA requires that any growth-inducing or inhibiting impacts be analyzed in detail, yet this SEIS fails to do that."**

Temporary attendees at a Church conference, seminar or educational course of study do not constitute a growth-inducing or growth-inhibiting impact. Housing accommodations for students have already been designed into and disclosed by the plans for the Church's headquarters. Attendees at a three to seven day event do not induce growth in Park County any more than the millions of temporary visitors to Yellowstone Park and for hunting and fishing trips in the local area do. Church members use the same motels and restaurants as other visitors to the local area, often at times when tourist visitation would otherwise be low. Their visits to the area do not require that more homes and accommodations be built. And it certainly does not constitute an effective doubling of the population of Park County. If that were the case, then why wouldn't Park visitors and hunters and fishermen also be considered as multiplying the population of Park County by a factor of 100 times or more?

3. The following statement is included in the comments submitted by the Greater Yellowstone Coalition: **"MEPA requires a detailed analysis of topics and impacts that are potentially significant, including social structures and mores, cultural uniqueness and diversity, access to and quality of recreational and wilderness activities, and locally adopted environmental plans and goals. We believe that these issues have been virtually ignored."**

It is important to realize that the MEPA process that has been undertaken is for a Supplement Environmental Impact Statement. The Supplement builds upon and adds to the prior DEIS and FEIS. Taken together as a whole, all of these subjects have been adequately discussed and analyzed and, where necessary, have been supplemented in the current DSEIS. The GYC fails to mention any particular substantive issue or item of information that has been left out of the discussion of these subjects.

4. The following statement is included in the comments submitted by the Greater Yellowstone Coalition: **"The state of Montana and the National Park Service are in the midst of developing a long range bison management plan for bison living in the park. These bison often migrate outside the park along what some scientists have indicated are historical migration corridors. Past winter migrations have occurred on the developer's land. Ed Francis has indicated that if bison numbers were to**

approach some core herd minimum, the Royal Teton Ranch would somehow take appropriate action to help avoid further bison takings. How would the proposed developments affect any opportunity to do this?"

The Church's position and the GYC's position on how to manage and mitigate the impacts of Yellowstone Park bison migrations are one and the same. This position was developed during a collaborative process sponsored by the Greater Yellowstone Association of Conservation Districts in which the Church, the GYC, public agency representatives and other interest groups participated. The position was set forth in a paper entitled, "Management of Yellowstone Bison." A copy of that statement has previously been provided to the state and/or its contractor in the process of producing the DSEIS (additional copy enclosed). Since the position of the Church, the GYC and the other interest groups involved in the process was to prevent the migration of bison onto private land north of Yellowstone National Park, the proposed projects on Church property would not significantly affect the management of bison or the opportunity to take appropriate action to avoid takings that approach a "core herd minimum" (such as trapping bison and transporting them back into the interior of Yellowstone Park).

5. The following statement is included in the comments submitted by the Greater Yellowstone Coalition: **"The numerous springs and hot water upwellings that occur near or in the Yellowstone River between Bear Creek Springs and Corwin Springs have a direct effect on the ecology of the Yellowstone River. The heat and chemical character of the hot water from these sources affect the entire life chain, from the simplest protozoa to the most sophisticated predators. The introduction of these thermal waters into the Yellowstone River in this area could impact the cutthroat trout, a species of special concern to Montana, by improving the hospitality of the river in that stretch by moderating water temperature variations, while enhancing productivity of macroinvertebrate that support fish populations (Brad Shepherd, Montana Department of Fish, Wildlife and Parks, 1991)."**

Pumping of the Church's geothermal well at the current rate of 35 gpm not to exceed 10 acre-feet per year did not measurably affect the flow of LaDuke Hot Spring into the river. The hypothesis presented here by the GYC is of course speculative and has not been the subject of any studies, as acknowledged by Brad Shepherd of the Department of Fish, Wildlife and Parks (1991). However, if and whether there would be any such impact would be dependent upon analyzing potential effects of a specific future appropriation which would be subject to review by the Montana Department of Natural Resources and Conservation (DNRC).

Preliminary research, however, indicates that the impact of the Church's use of its existing water rights to LaDuke Hot Spring (or a similar volume of use from a well that might intercept the flow of LaDuke Hot Spring) on the winter temperature of the Yellowstone River would be negligible. An engineering study prepared by Morrison-Maierle/CSSA (1992) which investigated the possibility of piping LaDuke Hot Spring water under the Yellowstone River to Church property concluded that diverting the entire flow of LaDuke Hot Spring and removing the temperature from the water would result in a wintertime reduction of temperature in the river of a maximum of only .0329°F. That report stated as follows:

> "One concern that has been identified is the effect on Yellowstone River water temperature due to the removal of heat from the LaDuke Hot Spring before the water is allowed to discharge to the river. This effect would be more significant in the winter than in the summer due to lower river flows and temperatures at that time of year relative to the temperature of the LaDuke Hot Spring.
>
> "LaDuke Hot Spring flows at an average rate of 110 gallons per minute and at an average temperature of 147°F according to the most recent USGS report. The LaDuke Hot Spring area which includes LaDuke Hot Spring and springs and seeps in the river channel is reported to contribute approximately 966 gallons per minute to the flow of the Yellowstone River. Therefore, LaDuke Hot Spring contributes 110 gallons per minute to the river and springs and seeps outside the spring box area and in the river channel contribute approximately 856 gallons per minute to the river.
>
> "The mean flow of the Yellowstone River at the Corwin Springs stream flow gage is reported in Water-Resources Investigation 80-41 to equal 835 cfs during

the winter month of February. This is the month that exhibits the lowest annual water flow. A flow of 835 cfs is equal to 375,750 gallons per minute. Therefore, the 110 gpm flow of LaDuke Hot Spring is approximately 0.03% of the typical winter flow in the Yellowstone River. The total flow of 966 gallons per minute is equal to 0.26% of the typical winter flow in the river.

"The mixing of 966 gallons of hot spring water (total flow of LaDuke area including seeps in the river) at 147°F with 375,750 gallons of river water would raise the winter temperature of the river water approximately 0.3°F.

"The mixing of 110 gallons of hot spring water (flow rate of LaDuke Hot Spring alone) at 147°F with 375,750 gallons of river water at 35°F would raise the temperature of the river water approximately 0.0329°F. Table 1 shows the effect of 110 gallons per minute of LaDuke Hot Spring flow on the Yellowstone River at a river flow rate of 375,750 gallons per minute and a range of river water temperatures. As shown in Table 1, the mixing of the hot spring flow with the river water has a negligible effect on the winter river temperatures. This effect would be even less during the summer.

"TABLE 1
EFFECT ON RIVER TEMPERATURES

Temp of River, °F	Change in Temp, °F
35	.0329
40	.0314
45	.0300
50	.0285
55	.0271"

In addition, even if the entire flow of LaDuke Hot Spring were to be used for heating purposes by the Church, the remaining cooled water with its mineral and chemical content would still presumably be discharged into the Yellowstone River as it now is.

As has previously been stated, the Church has no intention and has not proposed to use the flow of LaDuke Hot Spring or its geothermal well at any more than the natural surface discharge rate of the spring (approximately

80 to 140 gpm). Available information indicates that in no event would this use significantly or measurably impact the temperature or aquatic environment of the Yellowstone River.

6. The following statement is included in the comments submitted by the Greater Yellowstone Coalition: **"The developer, not the taxpayer, should bear the financial costs of the EIS preparation, and all appropriate mitigation and enforcement activities. We believe it is inappropriate to pass the cost for EIS preparation, mitigation and enforcement measures on to the taxpayer."**

Again, the GYC seems to be misinformed on the agreements that exist between the Church and the Department and the financial obligations that the Church has undertaken for the production of the SEIS. Had the GYC made a reasonable inquiry, it would have found that the Church has taken financial responsibility to reimburse the Department for the costs associated with the SEIS preparation. The Department has not undertaken any costs associated with mitigation measures occurring on Church property.

7. The following statement is included in the comments submitted by the Northern Plains Resource Council (Richard Parks): **"On page 3-4, item (e), it is claimed that the applicant complied with the agreement to confine sheep to that area north of Mol Heron Creek. The Department and the contractor working on this DSEIS were both informed in July of 1992 that the applicant did, in fact, have sheep in the exclusion zone."**

There seems to be a misconception on the part of this as well as several other special interest environmental groups and individuals about the area covered by the Church's agreement not to graze domestic sheep in order to minimize the potential for disease transmission to Bighorn Sheep. This is illustrated by a similar comment received from an individual who stated that "they were also grazing their sheep south of Mol Heron Creek, under the watchful eye of the herder (so the sheep hadn't just strayed), another violation of their prior agreement..." (Hank Rate).

However, as stated in paragraph 2(e) of the Mitigation Plan Agreement dated February 16, 1989 (FEIS, page 347), the restricted area is clearly described as "those

portions of Sections 24 and 25, Township 8 South, Range 7 East, bounded on the north and west by the Mol Heron Creek County Road." The Mol Heron Creek County Road runs along the base of Cinnabar Mountain all the way to the end of the public road at the entrance to the Church's Conference Site. In some places the road is well over one-half mile south of Mol Heron Creek where it crosses or borders the Church's property.

The Church has abided by this agreement and has not grazed sheep within the restricted area. The Northern Plains Resource Council and others seem to be assuming that the restricted area is bounded by Mol Heron Creek rather than the Mol Heron Creek County Road. This, of course, is not the case. Since no specifics have been offered as to where exactly the Church's sheep were alleged to have been grazing, we have no way of responding in any more than a general way.

8. The following statement is included in the comments submitted by the Northern Plains Resource Council (Richard Parks): **"I have seen no evidence of successful revegetation of any sort at the 'East Gate' area. In fact a large salvage soil pile on the site is often the source of considerable blowing dust."**

The disturbance occasioned by the construction of the East Gate Work Camp has been fully reclaimed and revegetated, the fact of which has been demonstrated to those persons involved in SEIS preparation who received a tour of the site. A supply of topsoil remaining after construction was stockpiled so as not to waste a valuable resource. The Church intends to continue to use the topsoil in conducting further landscaping and reclamation activities in nearby areas. The surface of the stockpile has been temporarily vegetated in order to avoid blowing dust. Prior to this letter we are aware of no complaints that have been expressed about this material.

9. The following statement is included in the comments submitted by the Northern Plains Resource Council (Richard Parks): **"On page 3-11 we find Mr. Francis being quoted in regard to the aliquot division of RTR-S thusly, 'Interestingly enough, after the aliquot division occurred the zoning proposal was then dropped.' In point of fact there was no zoning proposal."**

Again, Mr. Parks of the Northern Plains Resource Council is incorrect in his rendition of the facts concerning the Church's activities and prior related events. A zoning proposal was indeed prepared for adoption in all of rural Park County in 1982. Several newspaper clippings from 1982 and a copy of a portion of the proposed "Findings of Necessity" dated April 27, 1982 and attached "Interim Zoning Resolution of Park County" are enclosed. A County Master Plan has never been completed or proposed for adoption in Park County, although the County Planning Department has been reportedly working on such a plan for several years.

10. The following statement is included in the comments submitted by the Northern Plains Resource Council (Richard Parks): **"I have lived here since 1953. Never in my memory has Mol Heron been dewatered by agriculture or anything else."**

Attached is an Affidavit of Evan Dodson, the foreman of the ranch from 1967 to 1977, who states that "In T8SR7E, just west of the center of Section 24 the waters of Mol Heron Creek are diverted for use on T8SR7E, Sections 13, 19 and 24; at times we diverted all of Mol Heron Creek and used at least 4,000 miners inches in this ditch."

11. The following statement is included in the comments submitted by the Northern Plains Resource Council (Richard Parks): **"On page 4-16 the discussion of the 'Golden Age Village' begins. I have a general objection to approving expansion plans for a developer whose existing operation is clearly in violation of the subdivision law."**

Mr. Parks' lack of accurate knowledge of the facts and/or his ability to reinvent history is nothing short of astonishing. The Golden Age Village was approved by Park County as well as the Department as a mobile home park subdivision under the Montana Subdivision and Platting Act and the Park County Subdivision Planning Regulations. How then is it "clearly in violation of the subdivision law"?

12. The following statement is included in the comments submitted by the Upper Yellowstone Defense Fund (Julia Page): **"The map of the whole RTR-S on page 1-26 omits the new road linking the shelter site with the road out Beattie Gulch. This road was put in during the**

abandoned coal mine reclamation work, but was never closed out and reclaimed."

The map of the RTR-S was not intended to be detailed enough to show all roads on the property. It was primarily intended to show the location of the property in relation to the surrounding area and to depict the principal locations of activity sites on the property. Some existing roads are shown, and we are investigating the possibility of adding more of the existing roads.

Concerning the alleged "new road" linking the shelter site with the road that proceeds out of Beattie Gulch, Miss Page is mistaken. This road has been in existence for many years and predates the Church's ownership of the property. The road does not run to the shelter site. Our research suggests that this and other similar roads on the ranch are as much as a century old and date back to the time of Aldridge and the extensive coal mining and timbering activities at the turn of the century. A portion of this road was improved by the contractor for the Department of State Lands (DSL) during the abandoned coal mine reclamation activities in order to allow for access by heavy equipment. Disturbances along roadsides were fully reclaimed through contouring, spreading of topsoil and revegetation by the contractor for the DSL. The road was not closed out and is not intended to be, as it is the only road that provides access to a large portion of the ranch and several other private ownerships.

13. The following statement is included in the comments submitted by the Upper Yellowstone Defense Fund (Julia Page): **"The conference/shelter area map does not show the location of the existing septic system associated with the 'upper campground.'...The map should show three tiers, not two for the parking area. I know the department is aware of this because I talked with Tom Ellerhoff specifically about this new disturbance. Also, the trailer house for the 24 hour-a-day guard at the 'locked gate' isn't shown."**

Again, Miss Page is mistaken. The parking area at the Conference Site consists of two tiers, not three as suggested by her. Additional level areas exist below the two parking tiers and are labeled on the map in accordance with their actual uses as "Youth Program Area." In addition, the trailer just to the north of the locked gate at the entrance to the Conference Site is shown on the map.

14. The following statement is included in the comments submitted by the Upper Yellowstone Defense Fund (Julia Page): **"In early December this year, the DHES, Pat Williams, the UYDF and a local newspaper reporter were all sent anonymously a chart of information elaborating on Francis's letter. This information strongly suggests that CUT's operations are an elaborate money making scheme hidden behind the facade and the tax exempt status of a religious organization."**

The chart referred to by Miss Page that was "sent anonymously" to the Department and others is filled with falsehoods, half-truths and inaccuracies, is libelous, and is the worst kind of unverifiable rumoring that can be imagined. Anonymous mud-slinging of this sort has no place in a state process that is designed to set forth the best scientific and factual data available on a subject. Even the newspapers will not print letters that do not contain the name and address of the writer.

We object to including all or any portion of this anonymous chart in the SEIS. This would effectively force the Church to have to defend itself against numerous ridiculous charges without being able to face its accusers. This has no place in a governmental process under which all are to be afforded equal protection under the law.

D. INDIVIDUAL COMMENTS.

1. The following statements are included in the comments submitted by Thomas Barry: **"My property is across the road from the proposed sewage treatment facility of the Golden Age Phase II project in Emigrant. We are planning a caretakers house and guest resident [*sic*] that would be no more than 150 to 200 feet from the sewage project.... The soil throughout this property and that of the sewer project is extremely porous and will present a great danger to my existing and future wells....I don't find, however, anything in the study that relates to the property across the road, namely mine, that is no more than 150 feet away, which again includes my water rights on Fridley Creek. I firmly object to this hastily proposed sewer facility that in my experience unquestionally [*sic*]**

poses a serious threat to the health and welfare of my family, employees and my guests."

The proposed sewage system for the Golden Age Village Phase II has been neither hastily proposed nor does it pose a threat to the health and welfare of the family, employees or guests of any adjoining property owner. We have not spoken with Mr. and Mrs. Barry concerning this project; however, it is clear that they knew or should have known of the existence of the Golden Age Village and the proposed Phase II expansion at the time they purchased their property on September 1, 1992. At that time our proposals had already been submitted to the Department, the SEIS was already in process, and extensive media coverage had been occurring for a number of months.

Evidently Mr. Barry feels that his development of a caretakers house and guest residence in addition to the large house and barn already located on his property is appropriate, but that the establishment of additional residences in the Golden Age Village off of his property is not. Mr. Barry has never informed us of his expansion plans (evidently hastily prepared since September 1, 1992) and we have not had the opportunity to review or comment on them.

The boundary line between Mr. and Mrs. Barry's property and the Community of Glastonbury is the centerline of Dry Creek (not a fenceline north of Dry Creek). The closest distance between the proposed sewage treatment system effluent disposal area (infiltration trenches) and Dry Creek is approximately 400 feet. From an examination of the map it does not appear that additional dwellings could be built on the Barry property any closer than approximately 500 feet from the proposed sewage treatment system, unless they are located within 100 feet of Dry Creek (Mr. Barry cannot install a new septic system within 100 feet of the creek either). A table of the distances of parts of the proposed sewage treatment system to areas on the Barry property (Certificate of Survey No. 290), including the existing residence and well, is shown below:

	Proposed Treatment Plant	Proposed Infiltration Trenches	100% Replacement Area
Property Boundary (Dry Creek)	700'	400'	295'
100' Inside of Barry Property Boundary	800'	500'	395'
Existing Barry Well	1,200'	900'	795'
Existing Barry Residence	1,375'	1,075'	970'

*See plans attached to Preliminary Engineer's Report for the Golden Age Village Glastonbury North/Phase II (Rev. 0), and Site Map (Sheet C-1) attached to Supplement to Application for Beneficial Water Use Permit No. 43B-1079988-00.

The table shows that the distances to the Barry property are much larger than represented in Mr. Barry's comment. This fact, combined with the high level of treatment that will be provided by the Fixed-Film Activated Sludge Treatment Plant that is proposed for the Golden Age Village, should resolve any questions of proximity or harm to Mr. and Mrs. Barry's property.

2. The following statements are included in the comments submitted by Robert L. Chambers: **"Since the geothermal well on the west bank is directly connected to an aquifer supplying the Yellowstone River and LaDuke Spring, your statement in the first paragraph of 4.2.3.9 is totally in error. By pumping this well CUT was in violation of Montana Water Law, Part 8, Diversions From the Yellowstone River Basin, 85-2-804 and subsections (b), (d), (e), (f), and (g)....We do not feel a permit should ever be granted based upon 85-2-804 (g) which states 'the applicant intends to comply with the laws of the signatory states to the compact.'"**

Mr. Chambers' interpretation of Section 85-2-804, MCA, is incorrect. Montana Water Law Chapter 85, Part 8, pertains to "Diversions From the Yellowstone River Basin." The Church has not diverted and does not propose to divert any water out of the Yellowstone River Basin, and therefore the statute cited by Mr. Chambers is inapplicable (see also Yellowstone River Compact, 85-20-101, MCA, Article X, concerning diversion of water from and importation of water to the Yellowstone River Basin).

It is interesting to note, however, that Mr. Chambers, in addition to being a YNP employee, is a signatory to numerous Notices of Completion and/or Applications for Beneficial Water Use Permits that seek to divert hot spring water that is currently flowing into the Yellowstone River. The question that immediately arises is, why would he feel that his diversions are legal when he contends that the Church's appropriation of water from a well adjacent to the river is illegal?

3. The following statements are included in the comments submitted by Loretta Chapman: **"I do have personal experience in this, as I was the census enumerator for Gardiner and the surrounding area in 1970 and again in 1980, and a friend was the enumerator in 1990. In the town of Gardiner, both sides of the river, up to the 'Z' hill, but excluding inside the boundary of Yellowstone Park I counted approximately 425 people in 1970. 10 years later there were approximately 650 people in the same geographical area. My friend tells me that in 1990, in the same area, were living approximately 800 persons."**

Mrs. Chapman's recollection supports the conclusion in the DSEIS that the town of Gardiner has been expanding significantly and that this expansion accounts for much of the increase in traffic and county services over the past decade in southern Park County.

While not official, her version of the census data indicates population growth in the town of Gardiner of approximately 90 percent in the last 20 years. Although the percentage increase by her figures is not as great as the percentage increase according to the DSEIS, the total number of people living in Gardiner is much greater. None of the property mentioned in her census area is located on or near the Church's land. Her data merely confirms the fact that all of the increases in traffic and county services in southern Park County in the past decade cannot be attributed solely to the Church.

4. The following statements are included in the comments submitted by Park County Commissioner Carlo Cieri: **"I am not saying that they should be treated any different than anyone else....I think it is time to put**

an end to all of this double talk and force the CUT to come out with concrete plans and figures and intent based on a 40 year plan."

Who else in Park County--or anywhere else in the state of Montana for that matter (including even railroads and mines)--is required or even asked to produce "concrete plans and figures and intent based on a 40-year plan"? When Park County itself produces a 40-year plan, then County Commissioners can start telling private citizens they should have such a plan.

5. The following statements are included in the comments submitted by Irving Friedman: **"My major comment concerns the statements of Sorey (1991) relating to (1) the present hydrologic connections between Mammoth Hot Springs and Corwin Springs KGRA (page 3-55) and (2) his statement (p. 4-40) regarding the lack of adverse effects to the thermal features of Yellowstone by continual production of thermal water from the CUT well at rates near 400 gpm. I take issue with his conclusions. In testimony before the House Subcommittee on Mining and Natural Resources of the Committee on Interior and Insular Affairs (October 31, 1991) and the Senate Subcommittee on Public Lands, National Parks and Forests of the Committee on Energy and Natural Resources (February 25, 1992) I supported my position that there is no proof to validate Sorey's statements. I am attaching a copy of my testimony before the Senate subcommittee. In view of the serious professional disagreement on these issues, I request that a statement be inserted in the final EIS document that addresses these points of disagreement."**

Mr. Friedman did not participate in the USGS study on the potential effects on Yellowstone Park thermal features from the use of the Church's geothermal well. Mr. Friedman is also not an expert on hydrothermal systems. However, it is well known that he has presented himself as a critic of the USGS findings. Mr. Friedman does not submit any convincing scientific data to alter the conclusions, but only disputes the interpretation of some of the data.

Moreover, it appears that Mr. Friedman's objections to the conclusion of the USGS report are more philosophical in nature than scientific. This is clearly demonstrated in the conclusion to his written testimony before the

Senate Committee on Energy and Natural Resources on February 25, 1992, in which he stated as follows: "In assessing possible damage to thermal features of Yellowstone Park by geothermal and other development adjacent to the Park, Science can go only so far, and then Philosophy takes over....In determining the risk to the Park by geothermal development in the Corwin Springs KGRA, Science can go no further and Philosophy must take over. The USGS has been funded by Congress for over 20 years to investigate and help develop geothermal energy. Its philosophical bent will inevitably be to err on the side of development....In contrast, the NPS is funded by Congress to protect the parks, and its philosophy will be conditioned by this. I urge this committee and the Congress to err on the side of preservation,...." (Emphasis added)

6. The following statement is included in the comments submitted by Nancy R. Kirkpatrick: **"I feel allowances are being granted to the Church Universal and Triumphant that would be denied to any other large (or small) corporation and that this group should be treated the same. The hearing in Livingston with no opportunity for open discussion was biased toward the Church."**

All of the hearings conducted on the original DEIS and now on the DSEIS have been conducted under the same rules. Members of the public have been free to state any opinion and make any accusation about the EIS, the Department and the Church. On each occasion the Church has not been given the opportunity to give any rebuttal or to enter into any debate during the hearing. The only opportunity for rebuttal has been in writing after the public hearings have been concluded. How is this biased in favor of the Church?

7. The following statement is included in the comments submitted by Mary E. Lennon: **"I believe the state is abdicating their responsibility in not declaring the bomb shelters 'public' facilities. Individuals can purchase spaces in these shelters."**

Ms. Lennon may be confusing the Church's fallout shelters built for the members of its staff and their families with other shelters not owned or operated by the Church. Individuals cannot purchase spaces in the Mol Heron shelter complex and none have ever been sold or offered for sale.

8. The following statements are included in the comments submitted by Rick Meis: **"The development and sale of spaces within the bomb shelter should fall within the realm of the Montana subdivision law, which for the sale of sites of less than 20 acres requires special handling and treatment including full review of the water and septic system, access, and a variety of other development....The situation with the limited commercial development of the geothermal well by CUT is another major bone of contention. Sure, a landowner can punch a well and pump 35 gpm, but doesn't it have to be for a recognized beneficial use?...What constitutes the beneficial use?"**

The Montana Attorney General ruled in 1991 that the sale or rent of spaces in a fallout shelter is not a "condominium" and is not subject to the Montana Subdivision and Platting Act (see enclosed copy of Attorney General's letter of advice dated August 14, 1991).

Geothermal heating and medicinal hot spring pool uses are considered to be "beneficial uses" under Montana Water Law. In response to Mr. Meis's inquiry, one need only ask the question: Would the DNRC, Montana courts, and the public at large accept the uses of geothermal water at Chico Hot Springs, Fairmont Hot Springs and Broadwater Hot Springs as beneficial uses? If these are considered beneficial uses, and they are, then the status of the Church's use of geothermal water is no different.

9. The following statements are included in the comments submitted by David Price: **"As a volunteer fire fighter, emergency services are a real concern to me. I respect private property rights but the fact that C.U.T. restricts access to many of their sites presents a threat to the health and safety of emergency responders."**

The Church has never restricted or attempted to restrict reasonable access by emergency responders on its property. In fact, the clear record is to the contrary. This is like saying that because a homeowner requires visitors to knock or ring the doorbell before being admitted that he is creating a threat to the health and safety of his family because he is "restricting" access to his house. This comment is particularly ironic in view of the recent refusal of the Gardiner Volunteer Fire Department (of which Mr. Price is a member) to respond with backup assistance during the mobile home fire behind

The Ranch Kitchen on Church property. The Church's volunteer fire brigade put the fire out on its own. As a result of this incident, the RTR Volunteer Fire Department is now attempting to negotiate a Mutual Aid Agreement with other Park County rural fire districts.

10. The following statements are included in the comments submitted by Hank Rate: **"The EIS states that fuel tank and septic system installations will be subsequently permitted by appropriate agencies. The assumption seems to be that these installations can be made safely and that only design review and supervision will be required in issuing the permits....It also should be considered in the light of CUT guidelines that all tanks and structures need to be covered with 20 feet of earth."**

The Church has no guidelines that all tanks and structures need to be covered with 20 feet of earth, and no such guidelines have ever existed. The plans and specifications submitted with the Application for Permit to Install Underground Storage Tanks clearly show that the earth cover over the tanks will be 3 to 8 feet, depending upon surface ground elevations and slopes in relation to each shelter. In most cases, the earth cover will not exceed 4-5 feet.

Section 3.6 of the Petroleum Equipment Institute "Recommended Practices for Installation of Underground Liquid Storage Systems," PEI/RP100-90 (copy enclosed) specifies that the manufacturer should be consulted if the burial depth is greater than the tank diameter. The diameter of the STI-P_3 steel tank we have specified is 12 feet. Section 2-3.23 of NFPA 30, 1987 (copy enclosed) also specifies that the depth of cover should not exceed the tank diameter.

11. The following statements are included in the comments submitted by Hank Rate: **"The extensive well drilling program in the Spring Creek area in spring 1992 is not fully explained. The drill rig made at least five settings above the county road and at least three settings along the river near the existing geothermal well. This does not jibe with the figures provided in the EIS and doesn't address the possibility that the geothermal aquifer has been tapped in more than one location."**

As has previously been explained to the Department, the well drilling that occurred in the Spring Creek area in 1992 was pursuant to an Interim Permit issued by the DNRC. A total of seven wells were attempted, of which five were dry holes or produced inadequate water and were abandoned. Two were completed into viable fresh water aquifers and are proposed for use as the Spring Creek domestic water supply system. Also, one test well was drilled in 1986 for domestic water and remains active for testing and monitoring purposes. None of the wells contacted any geothermal water or aquifers. (See the enclosed Spring Creek Well Summary Table.)

E. COMMENTS FROM TRANSCRIPT OF PUBLIC HEARINGS.

1. The following statement was made by Ellen Woodbury, on behalf of the Park County Planning Board, at the public hearing in Livingston on January 6, 1993 (page 82): **"The Church has also buried propane tanks in the Mol Heron drainage. While propane tanks are not under DHES review, they do have to meet the uniform codes, uniform fire codes for buried tanks. The state fire marshal's office is in charge of these buried propane tanks, and the state does have a law requiring that the tanks meet the codes. Unfortunately, there is no permitting process. Rich Levandowski in the State Fire Marshal's office stated the Church has never contacted them for information on installing underground propane tanks, or asked for inspection of these tanks."**

While it is true that the Church does have buried propane tanks in the Mol Heron drainage, it is not true that the installation has not been inspected by the State Fire Marshal Bureau or that the Church has not contacted the State Fire Marshal for information. On December 8, 1989, Deputy Fire Marshal Jack Sousa inspected the installation of underground propane tanks at the Mol Heron Shelter facility. On December 15, 1989, he forwarded a report of his inspection to State Fire Marshal Ray Blehm, Jr. (copy attached). No unsafe conditions or irregularities were noted in any of the installations during his inspection.

2. The following statement was made by Ellen Woodbury, on behalf of the Park County Planning Board, at the public hearing in Livingston on January 6, 1993 (page 83): **"The Golden Age Village Company [*sic*] has forty-seven mobile home sites and the Church is proposing to add at least seventy-seven more units. The Planning Board will review the addition under Park County**

Subdivision regulations. However, the Board is concerned that a hundred and twenty-four (124) mobile home units may have an effect of depleting the groundwater in one area and also the septic systems could pollute the groundwater. There is very little groundwater information available in the area and a groundwater study should be required before the new mobile homes go forward."

A groundwater study was included in the information submitted to the DNRC in connection with the Church's Application for a Beneficial Water Use Permit for the proposed Golden Age Village Potable Water System expansion, copies of which were also provided to the Department. The study shows that the aquifer that supplies the Golden Age Village wells is more than adequate for the use contemplated, and there is no indication that groundwater in the area will be depleted.

The proposed sewage treatment system will be approved by the Department as a "public" system meeting all applicable state standards. The Church has submitted detailed plans, specifications and information concerning the high level of treatment that will be given by the Fixed-Film Activated Sludge Treatment Plant that is proposed for the project. The groundwater in the area will not be polluted.

The existing Golden Age Village has 49 mobile home lots, not 47.

This concludes our response to the public comments. Please contact us if you have any questions concerning any of the responses.

Very truly yours,

CHURCH UNIVERSAL AND TRIUMPHANT, INC.

Edward L. Francis
Vice President and Business Manager

ELF:tcb

Enclosures

Greater Yellowstone Coalition P.O. Box 1874 Bozeman, MT 59715 (406) 586-1593

ECOACTION

ATTACHMENT 16

Jan. 8, 1993

Dear GYC Member,

Some issues seem to be forever resurfacing. Such is the case with developments by the Church Universal and Triumphant along Yellowstone National Park's northern boundary and proposals for large-scale oil and gas leasing on the Shoshone National Forest. We need to ask you to write letters regarding these extremely important issues.

Your letters could make the difference for these two important areas of the Greater Yellowstone Ecosystem. We've asked you to write on these issues before, but we need to convince both the State of Montana and the Shoshone National Forest that these issues are still very important.

The deadlines for comments are soon, so please write today!

State Fails to Regulate CUT Development

The Montana Department of Health and Environmental Sciences has issued a supplemental Environmental Impact Statement on proposed developments by the Church Universal and Triumphant on its 33,000 acre property north of Yellowstone National Park. This is a second Enviornmental Impact Statement (EIS) of the church's ambitious building plan because CUT failed to disclose all proposed developments for a 1989 EIS.

The EIS estimates that when completed, the Spring Creek area of the CUT development would rival or exceed the population of nearby Gardiner, Montana. The developments threaten the unique pronghorn antelope herd that relies on winter range outside the park, and pose increased threats of conflicts between humans and grizzly bears.

The area's high quality habitat and scenic landscape have already been compromised by massive fuel spills, illegal dumping of sewage, pumping of a geothermal well in violation of an agreement with the state, and construction of bomb shelters and associated underground fuel tanks.

This area has repeatedly been recommended for public ownership because of the high wildlife, fisheries and geothermal values. The area lies within the Corwin Springs Known Geothermal Resource Area, where subsurface development by CUT threatens Yellowstone's unique geothermal resources.

As written, the state's draft EIS on CUT developments suffers from a variety of deficiencies, including:

1. Fails to provide protection for Yellowstone's geothermal resources.

Even though CUT has made it clear it intends to develop a geothermal well on its property, the State fails to adequately address the issue in the EIS. The state ignored a National Park Service analysis that pumping from a geothermal well could have irreversible impacts on Yellowstone's geysers. Further, the state fails to acknowledge that when CUT pumped hot water from a well, it was in violation of an earlier agreement with the state.

2. Fails to evaluate alternatives to CUT's proposed developments.

One fatal flaw of the EIS is that there is no consideration of alternatives that could mitigate or possibly eliminate some of the projected impacts to wildlife and fisheries. The document includes no alternative locations for the illegally constructed 756-person bomb shelter complex along Mol Heron Creek, or the religious sect's headquarters at Spring Creek along the Yellowstone River. The state contends that evaluating such alternatives would be inappropriate because they are "divinely inspired."

3. Fails to call for effective mitigation measures that would protect the area's fisheries and wildlife.

Although sedimentation from the developments threatens fisheries in tributaries to the Yellowstone River, the state only relies on placement of hay bales to control sedimentation, rather than more effective measures such as sedimentation filters or ponds.

In addition, the state calls for a Multiple Species Conservation Plan if future developments are considered. Instead, the Conservation Plan should be made mandatory and implemented immediately to protect the herds of bison, elk, pronghorn, deer, grizzly bears and other wildlife that migrate out of Yellowstone Park and frequent the area.

4. Fails to adequately evaluate the effects of CUT's developments on water quality.

Of particular concern is Mol Heron Creek, one of the few remaining viable spawning streams for Yellowstone Cutthroat trout. Adjacent to the creek lies the bomb shelter complex, and the site where up to 6,000 people gather for a summer conference.

Despite a history which includes a 33,000 gallon fuel spill at the shelter complex, the Montana Department of Health is abdicating its responsibility by failing to require an adequate sewage system at the bomb shelter. The proposed sewage system is grossly under-designed and destined to overflow, spilling raw sewage in Mol Heron Creek.

Please submit comments by the Jan. 18 deadline to:

Montana Department of Health and Environmental Sciences
P.O. Box 200901
Cogswell Building
Helena, MT 59620-0901

Headwaters Group of
the Sierra Club
P.O. Box 1678
Bozeman, MT 59771-1678

Nonprofit Organization
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ATTACHMENT 17

State Fails to Regulate CUT Development

The Montana Department of Health and Environmental Sciences has issued a supplemental Environmental Impact Statement (EIS) on proposed developments by the Church Universal and Triumphant (CUT) on its 33,000 acre property north of Yellowstone Park. The state's draft EIS fails to:

1) **Adequately address CUT's plans to develop a geothermal well on its property.** A Park Service analysis concluded that this could have irreversible impacts on Yellowstone's geysers.

2) **Call for effective mitigation measures that would protect the area's fisheries and wildlife.** The Conservation Plan should be made mandatory and implemented immediately to protect the herds of bison, elk, pronghorn, deer, grizzly that visit the area.

3) **Evaluate alternatives to CUT's proposed developments.** The state contends that considering any alternative locations for the 756 person bomb shelter or headquarters complex would be inappropiate because they are "divinely inspired."

4) **Evaluate the effects of CUT's developments on water quality.** The bomb shelter complex and the site where up to 6,000 people gather for a conference lies adjacent to Mol Heron Creek, one of the few remaining viable spawning streams for Cutthroat Trout. The EIS fails to address a history of fuel spills or require an adequate sewage system for the shelter.

Please submit comments by the Jan. 18 deadline to:

MT. Department of Health and Environmental Sciences
P.O. Box 200901, Cogswell Building
Helena, MT. 59620-0901

Bozeman Daily
HRONICLE
Tuesday, June 30, 1992 • Bozeman, Montana

ATTACHMENT 18

hurch taps geothermal well

T McMILLION
Staff Writer

STON — In an effort to al loophole, the Church and Triumphant has un- s geothermal well and imming pool with the hot oduces.

ove could bolster the rgument that it deserves pensated — possibly to the tune of $450,000 — if a bill banning geothermal development near Yellowstone National Park passes the U.S. Congress. The issue comes up for a Senate hearing Wednesday.

Uncapping the well appears to be legal and probably establishes a new water right, according to Donald MacIntyre, chief legal counsel for the Montana Department of Natural Resources and Conservation.

However, Yellowstone National Park Superintendent Bob Barbee said today he is worried about the effects on Yellowstone's geysers and thermal features, as well as the precedent that may be set by the church's decision to start the pump.

"It's not one well but the precedent of starting to drill holes into these aquifers," Barbee said today in a telephone interview. "It's the next 10 well, 20 wells, 200 wells that people keep punching."

Yellowstone was established in 1872 specifically to protect its geothermal features, Barbee noted. Similar features around the world have been altered by nearby development.

(More Taps, page 10)

S/ *from page 1*

began on Sunday, church sident Ed Francis said in a lease Monday. The move ort to "close a loophole" in nts by people who don't e government to give the any money if federal law elopment of its well.

if the church filled out its ork correctly, it probably blished a new but limited ight with its well on the nk of the Yellowstone Riv- NRC lawyer said.

a new right" and does not the church's rights to Hot Spring on the other the river, MacIntyre said. the department has to is- ater right" if the church's ion is complete and the use ater is "beneficial."

Intyre said department will conduct a field investi- of the well to determine if on the ground agrees with in the paperwork.

ncis said the church has swimming pool near the hich is on a grassy bench or storing trailers and is a more from the church's in- d structures. The church eventually to build a new arters complex there. A 32- per-minute pump and associ- ping have been installed on ll. Francis said.

MacIntyre said the amount of the new water right will depend on actual usage and may be less than 32 gallons per minute. Using more than 35 gallons per minute from one well may require an environmental impact statement before approval. When the well was drilled and tested in 1986, it was pumped at a rate of 400 gallons per minute. Citing a U.S. Geological Survey report, Francis said the well could be pumped at up to 140 gpm with "no risk of adverse effects on thermal features" in the park.

Barbee said that report is also full of warnings about using the well. The National Park Service issued a separate report that was much more cautious about geothermal development outside the park.

Congressman Pat Williams, D. Mont., saying that any risk to Yellowstone is too great, has authored the "Old Faithful Protection Act," which would ban geothermal development within 15 miles of Yellowstone National Park, an area than includes the church's well. If the bill passes, the church wants $450,000 in compensation for losing the well, which has been capped since it was drilled and tested in 1986.

That money would pay for a pipeline from LaDuke Hot Spring across the Yellowstone River to the church's planned development. The church owns water rights at LaDuke.

The bill has already passed the House and is scheduled for a hearing in the Senate Energy and Natural Resources Committee Wednesday.

The church's announcement also came the same day that the U.S. Supreme Court issued a decision making it easier for private property owners to win compensation when the government restricts development on their property to protect public interests.

The church advocates that Williams bill is a "taking" of private property rights, and began using the well to bolster the legal status of its rights. " We had no choice but to proceed. It's a shame it had to come to this," Francis said.

Sen. Conrad Burns, R. Mont., and two other Republican senators have advocated compensating the church but Burns backed off on that position last week after he learned the of the state DNRC's legal opinion that the church had no legal right to use the well.

But all the church had to do to establish a right was begin a "beneficial use" of up to 35 gallons per minute and file a notice with DNRC.

Burns' spokesman Bryce Dustman Burns will introduce amendments that would compensate anyone who owns a valid water right that was lost during the two-year moratorium in Williams' bill. The amount would be determined by a panel of appraisers.

Francis said in the press release the church had voluntarily avoided using the well and has suffered unreasonably because of it.

"Good faith and cooperation haven't carried much weight," he said. "We've given priority to the protection of Yellowstone Park by not moving forward, but no one has given any consideration to private property rights. In fact, waiting has done nothing but hurt us."

If Congress passes Williams' bill, Francis said, he wants to see "balance and fairness in the law to also allow for private property to be recognized and protected."

"Once maps (of the geothermal aquifer) are circulated, what are we going to be faced with?" Barbee asked, adding that it doesn't matter who develops wells. "I don't care if it's the Girl Scouts."

The USGS study of the Corwin Springs area said the church's well alone probably would have no effect on the park's famous geysers and hot pools. However, maps that accompanied that study show geothermal aquifers that underlie private land surrounding the park.

ATTACHMENT 19

Bozeman
Daily Chronicle

Big Sky

Monday, September 14, 1992 3

Geothermal bill's chances slim, Baucus aide says

By SCOTT McMILLION
Chronicle Staff Writer

A bill to protect thermal features in Yellowstone National Park from drilling outside the park is inadequate and has very slim chances of passing the U.S. Senate this year, according to a legislative aide to Sen. Max Baucus.

"It doesn't look likely that anything is going to move in this Congress," Baucus aide Curt Rich said today. "If we pass the bill as it is, it's not an act to protect Yellowstone, it's a bill the protect the interests of the Church Universal and Triumphant."

Baucus' office is working on amendments to the bill, but with only three weeks left in this session of Congress, getting the bill out of the Senate is unlikely, Rich said.

The bill, authored by Rep. Pat Williams and known as the Old Faithful Protection Act, passed the House earlier this year and later was amended by Sen. Conrad Burns in a Senate Committee.

As originally written, Williams' bill would have banned all subsurface geothermal activity around Yellowstone. Church officials and some Republican senators criticized the measure as a means of "taking" the church's water rights without compensation.

Burns' amendments would ban permanently all geothermal leasing on federal land within 15 miles of Yellowstone. They also would impose a three-year moratorium on geothermal drilling on private land within 15 miles of Yellowstone in Wyoming and Montana and order a federal study of possible impact on Yellowstone's thermal features.

However, that moratorium exempted the Corwin Springs area, where the church wants to use the hot-water well it uncapped briefly in June, because that area already has been studied by the U.S. Geological Survey.

Before the church's well could be used, according to Burns' formula the state of Montana would have to pass "geothermal legislation which will protect Yellowstone." Several critics have said Burns' amendments put the responsibility of protecting Yellowstone in the hands of state government, which may not be equipped to do so. Rich echoed that position today.

"I'm not saying the state would do a shoddy job but it's an awesome responsibility," Rich said, stressing that geothermal plumbing is very difficult to understand.

Because only three weeks remain in this session of Congress, chances are slim the Senate will consider the bill, Rich said. If the bill is reintroduced next year, it probably will be in a different and stronger form.

"If that means going back to the drawing board next year and drafting a new bill, so be it," Rich said. "The best position to take is to do it right the first time."

The church drilled the well in 1986 and it has been capped most of the time since then, despite a USGS finding that the well probably would have no impact on nearby Yellowstone. The church briefly uncapped the well in June and piped water to a swimming pool in an effort to establish a "beneficial use" under state law. State officials then ordered the church to shut down the well.

Yellowstone Superintendent Bob Barbee said earlier this year the church's well itself may not have an impact on Yellowstone but it sets a precedent for other drilling in the area.

Burns' amendments would require the "takings" issue to be resolved in a district court.

United States Department of the Interior
NATIONAL PARK SERVICE
YELLOWSTONE NATIONAL PARK
WYOMING 82190

IN REPLY REFER TO:

N3039(YELL)

June 21, 1991

Memorandum

To: Director, National Park Service

Through: Regional Director, Rocky Mountain Region /sgd/ Lorraine Mintzmyer

JUN 24 1991

From: Superintendent, Yellowstone National Park

Subject: Geothermal development in the Corwin Springs Known Geothermal Resource Area (KGRA)

As directed by Section 8(a) of the Geothermal Steam Act Amendments accompanying Public Law 100-443, the U.S. Geological Survey (USGS) and the National Park Service (NPS) conducted scientific studies to determine impacts of present and potential geothermal development in the Corwin Springs KGRA on the thermal features in Yellowstone National Park. The report on these studies is of three parts: 1) a scientific document, produced by the USGS, that presents and analyzes technical data gathered during the studies, 2) an impact analysis (enclosed), produced by the NPS, that uses these findings and additional information to evaluate the situation and present the various alternatives that could be pursued by Congress to protect the Yellowstone geothermal resource, and 3) this letter, which presents a recommended course of action as determined by park and regional interests and the interagency task force that evaluated the risk factors.

There is no question that a geothermal aquifer crosses the boundary between Yellowstone National Park and the KGRA in the Corwin Springs area. The connection between major surface geothermal features in the park and the KGRA is less clear and a matter of some scientific disagreement. However, based upon the studies and upon the history of geothermal developments near and in other major geothermal areas of the world, we concluded that there is sufficient probability of a connection between major geothermal systems in Yellowstone National Park and those in the Corwin Springs KGRA to warrant extreme concern over any development of KGRA geothermal resources. We concluded, based partly on the formal legal definition of the geothermal resource of Yellowstone National Park as including the entire park, that any risk, no matter how small, to Yellowstone's geothermal resource is too much risk. In order to ensure the integrity of Yellowstone's geothermal resources, we recommend that no subsurface geothermal development be permitted within the KGRA. This would require congressional action that would constitute a federal "taking" of the geothermal resource in the KGRA.

Our position differs from that stated in the USGS report in that they conclude that development could proceed under certain circumstances, and some risk to Yellowstone's geothermal resource is acceptable. Our reasons to disallow any withdrawal of geothermal fluids from the KGRA aquifers are as follows:

1. The Island Park KGRA (Idaho) issue was settled by complete withdrawal of the KGRA from any geothermal development. This was approved by Congress even though scientific investigations could not establish with absolute certainty any cross-boundary connection between Yellowstone National Park and the Island Park KGRA. By contrast, a cross-boundary connection has been established between Yellowstone National Park and the Corwin Springs KGRA. Thus we have a precedent to exercise extreme caution--a precedent based upon less conclusive scientific evidence than is available in the present situation.

2. Although we believe that in principle the single well on the Royal Teton Ranch constitutes an unacceptable risk to park resources, this single well is not the issue. When the USGS report is released, all landowners in the KGRA will have access to the best maps ever produced of the geothermal aquifers; this could easily start a "gold rush" to develop available resources on their own land. The entire geothermal realm, not just one specific site, must be our central consideration.

3. Congress, through its strong position so far on the Corwin Springs KGRA and past actions, such as the protection of the Island Park KGRA and other highly protective amendments to the Geothermal Steam Act, has made it clear it wants to provide park resources with absolute protection.

4. Even were science able to establish absolutely (which it cannot) to the agreement of all scientists (which is impossible), that development of that one well would not harm Yellowstone National Park, we would still have to object because it is a dangerous precedent, a debilitating foot-in-the-door for future geothermal developments. In the long run, that precedent is as real a danger to park resources as is the actual well.

5. Recent attempts at increased interagency coordination in the Greater Yellowstone Area met with substantial regional objection, except for certain issues. None of the involved parties, ranging across the political and special interest spectrum, objected to stronger measures to ensure the protection of park geothermal resources.

6. The USGS report ignores a host of other important considerations having to do with the ecological effects of drying up LaDuke Hot Spring. These include effects on fish, waterfowl, and surface spring ecology (geothermal plant and animal communities). The effects of the well on the dozens of other surface springs in the LaDuke Hot Spring area have not been fully considered, and these wells also play a major role in the area's ecological functioning. Thus, the future of LaDuke Hot Spring is not merely a question of who gets the water; the hot water has long played a significant role in the aquatic and riparian environments of the Yellowstone River.

We see the Corwin Springs KGRA as a pivotal case in the history of development threats to national park geothermal resources. International experience with geothermal development, existing legislation, congressional direction, and public sentiment are all overwhelmingly supportive of continued absolute protection of park resources, which means even the slightest risk is unacceptable. Frankly, we are unconvinced that the risks posed even by the existing well at LaDuke are slight; they appear to us to be considerable. More important, if that one well is allowed to go into production, the risks increase exponentially in an accelerating ripple effect that will affect not only the entire Corwin Springs KGRA but also every future development scenario in the national park system. Thus we cannot state too strongly our position that this development must not proceed.

COPY ORIGINAL SIGNED BY Robert D. Barbee

Robert D. Barbee

Enclosure

bcc:
Central Files
Research Division 2
Reading Files 2

FNP:JDVarley:mbn:6/21/91:2248

United States Department of the Interior
NATIONAL PARK SERVICE
YELLOWSTONE NATIONAL PARK
WYOMING 82190

IN REPLY REFER TO:

N1427(YELL)

SEP 7 1990

ATTACHMENT 21

Mr. Edward L. Francis
Royal Teton Ranch, Inc.
P.O. Box A
Corwin Springs, Montana 59021

Dear Mr. ~~Francis:~~ Ed:

In the past you have asked about the results of research concerning the effects of your jackleg fence on wildlife along the northern boundary of Yellowstone National Park. Although the results of this research have yet to be published here is a synopsis of our findings and recommendations.

For centuries thousands of wild ungulates have moved back and forth every year across what is now the northern border of Yellowstone National Park. This natural ebb and flow of life predates the existence of national parks, national forests, or private property in the region.

One important migration route is through the Reese Creek area. Elk, pronghorn antelope, mule deer, and bison commonly attempt to move north, particularly in winter, to reach range that will sustain them during harsh winter months. A majority of this winter range is public land in the Gallatin National Forest. Several thousand acres of public land are interspersed with Royal Teton Ranch land; several thousand more acres of public land are in blocks to the north or west of the ranch. Aerial counts by Montana and Yellowstone National Park biologists have shown that up to 1,500 elk and mule deer may winter on public land west of the Yellowstone River. At times, many bison, pronghorn, and bighorn sheep also travel through this area to reach public winter range. In spring the migration direction reverses, and most animals return south to the park. Besides these movements through the Reese Creek area, large numbers of mule deer, elk, and pronghorn move back and forth in their normal daily and weekly foraging activities.

The Royal Teton Ranch built a large jackleg fence along 2.2 miles of the park boundary in 1987, and another 650 feet were added to the east end in 1988. The long fence travels roughly east-west directly across the main north-south ungulate migration route in the lower Reese Creek area. The fence replaced a barbed wire fence on the boundary that had been maintained by several previous landowners. The jackleg fence is nearly 6 feet high and 6 feet wide at the base, making it the largest of its kind in the region.

Wildlife managers have been concerned that the fence would restrict wild ungulate access to public winter range to the north of Yellowstone as well as inhibit the return of animals to the park in the spring. Accordingly, in 1989 park biologists included their concerns about the fence in Yellowstone's comments on the "Church Universal and Triumphant Final Environmental Impact Statement" (pp. 37, 46).

From January 5 to March 8, 1988, and November 16 through March 14, 1989, park biologists studied the ability of wild ungulates to cross the jackleg fence. Research methods, results, and conclusions are contained in the enclosed research report.

The data conclusively showed that the jackleg fence hindered the movements of the elk, bison, and pronghorn that encountered it. Their passage was restricted mostly to gates. The gates, however, were found closed or opened irregularly. The total unsuccessful crossing rate (even with some open gates) for all species combined was 11.9%.

For your additional information, we estimate that if gates were closed, about one-fourth to three-fourths of the crossing attempts would fail, and 98% of the elk and 40% of the bison would not be able to cross from either direction. Consistent detouring around the fence would only be expected if a) most animals knew that such an option were possible and b) the energy expenditure of doing this two or more times a winter were not prohibitive. It is unlikely that both assumptions would be true throughout the winter and spring migration period--particularly for elk, which tend to try to cross near the center of the fence rather than at the lower end as did the bison and pronghorns.

Disturbance from human activities in the valley discourages the majority of elk from detouring around the lower end. On the upper (west) end snow depths commonly exceed 2 to 2.5 feet in the winter, making it an energy drain to detour around the fence to the west. This detour involves a climb of several hundred feet and then a similar descent to again reach the original migration route.

In conclusion the fence significantly impedes elk, bison and pronghorn movements, even when gates are left open. If most or all of the gates were closed, blockage of elk, bison, and possibly pronghorn movements to other lands would be considerable.

A wire cattle fence, meeting published wildlife passage standards, should have been built on the park boundary. Technical advice on that sort of wire fence is available from Montana Department of Fish, Wildlife and Parks; U.S. Forest Service; U.S. Bureau of Land Management; National Park Service; U.S. Soil Conservation Service personnel; university biologists; consulting biologists; and libraries in Montana and other states.

To meet the Congressionally-mandated duty to protect, preserve, and enhance the natural resources of Yellowstone National Park, we request that the Royal Teton Ranch, Incorporated replace or modify the jackleg fence across the wild ungulate migration route. We would prefer that the entire fence be removed and replaced with a 3-wire cattle fence that meets published wildlife passage specifications. The fence should have 12 to 15 foot wide gates in it every 250 yards. The gates should be left open at least October through April.

In the event the ranch sees fit not to replace the fence we request that all wooden rails be removed from single fence sections approximately every 100 yards. These rails should be replaced with a 3-wire fence that meets published specifications for wildlife passage. The wires should allow pronghorns to crawl under them and elk to jump over without injury in normal circumstances. All 22 existing gates should be left open at least October through April, which includes the major migration times to and from public winter range.

Ideally, the jackleg fence should be modified or replaced before ungulate migrations begin this autumn (usually in October). If the fence is modified, we view this as an interim solution until the entire jackleg fence can be replaced with a wire fence that promotes free passage of wild ungulates.

We look forward to working with you in the near future on changing the jackleg fence so it will no longer interfere with movements of large numbers of wild ungulates between Yellowstone National Park and other public lands.

Sincerely,

Robert D. Barbee
Superintendent

Royal Teton Ranch
Box A, Corwin Springs, Montana 59021 406/848-7381

ATTACHMENT 22

January 16, 1991

Mr. Robert D. Barbee, Superintendent
YELLOWSTONE NATIONAL PARK
U.S. DEPARTMENT OF THE INTERIOR
P.O. Box 168
Yellowstone National Park, Wyoming 82190

Re: Park Line Jackleg Fence

Dear Bob:

I am writing in response to your letter of September 7, 1990. We have now had the opportunity to review the report entitled "Jackleg Fence Effects on Movements of Four Ungulate Species," provided by you to us on September 24, 1990, and have analyzed it and compared it to information in our possession.

As you know, portions of the jackleg fence along part of the boundary between Yellowstone National Park and the Royal Teton Ranch were erected during 1987 and 1988. The data in your research report was collected from January 5 through March 8, 1988 and from November 16, 1988 through March 14, 1989, the first two seasons that parts of the new fence were in existence.

Prior to that time, a barbed wire fence divided the boundary between the Park and the ranch. That fence was old and was causing a number of repetitive problems, including:

(1) Near destruction of the fence annually by migrating elk, buffalo and other ungulates due to their inability to see or respect the barrier;

(2) Resulting high annual maintenance costs to attempt to repair or re-erect downed portions of the fence;

(3) Frequent injury or death of migrating animals--primarily elk cows and calves and mule deer--caught in the barbed wire while attempting to cross;

(4) Periodic wandering of domestic cattle into Yellowstone Park; and

(5) Threatened citations and fines by Park Rangers against the Royal Teton Ranch for "allowing" cattle to wander into the Park.

The jackleg fence was erected in response and has largely put an end to each of these problems. The issue that you have now raised is whether the new fence is actually inhibiting the migration of elk, deer and antelope either into or out of the Park in a significant way.

After an extensive review, we have determined that the research submitted by M. Douglas Scott in the report provided to us must be considered as both preliminary and inconclusive for several reasons. The deficiencies are outlined as follows:

1. As previously indicated, the data was collected by Scott and others during the winters of 1987/88 and 1988/89. The winter of 1987/88 was the first migratory season that a portion of the fence was in existence. The next winter was the first migratory season that the fence was completed in its present form.

It seems axiomatic that elk, deer and antelope, like other species of wildlife, would require a learning and adjustment period to become accustomed to encountering and crossing the new fence configuration. The first full season would obviously be a poor time to attempt to collect the data upon which future expectations are supposed to be based. Nevertheless, the "successful crossing" rate during this period approached 90% even by Scott's accounting (not including consideration of any other factors). There is no indication that Scott took this into account in drawing any of his conclusions.

2. As you know, the severe winter of 1988/89 followed the disastrous fires of the summer of 1988. These factors triggered massive migrations of both elk and buffalo, many if not most of which had never migrated outside of the Park before. As you are also aware, our agreement with the Fund for Animals which provided for the construction of the new jackleg fence required that openings in the fence be closed for the first 90 days of a new buffalo migration while the Fund attempted to find new alternative solutions to the killing of all bison that crossed into Montana. There were no significant bison migrations in this area during the 1987/88 season. Therefore, we were legally required to honor the agreement and keep these openings closed during the first 90 days of the 1988/89 bison migration.

You have been informed, and I am taking this opportunity to advise you again, that the policy of the Royal Teton Ranch with regard to the fence (barring any significant change in the public agency policies and practices now in place) is to leave all of the 22 gates provided in the fence open during the migratory season so as not to inhibit the movements of elk, deer and antelope. However, a sizable portion of the data contained in Scott's report was collected during the 90-day period described above in which openings were kept closed. That is an inaccurate representation of the conditions in existence now and as they will presumably exist in the future. I found no consideration of this circumstance in Scott's report.

3. There is no indication in Scott's report of how many allegedly "unsuccessful crossings" may have subsequently become "successful crossings." What we do know, however, is that there is no evidence of any herds or groups of animals stacked up against the fence unable to cross over, or of an abnormal number of animal carcasses being found in the area in the Spring. All of the evidence is in fact to the contrary: that any animals that wanted to cross the boundary and migrate in or out of the Park did so.

4. We are aware of at least one instance where one of the field workers gathering data for Scott's report was observed inadvertently spooking elk that were on the verge of crossing the fence. This occurred during the winter of

1988/89. On this occasion, persons on the ranch were observing (at a distance) a group of approximately 20 elk moving toward one of the gates to cross out of the Park when the elk were suddenly spooked and ran back into the Park. A few minutes later a man came walking down the fence line. Upon investigation, he identified himself as D. L. Trofka, a Park Service biologist who is listed in Scott's study as one of the persons gathering the data. A conversation ensued, during which he indicated he was not aware that he had scared elk away from the fence and back into the Park.

Close approaches to the fence followed by a retreat were recorded in Scott's report as "unsuccessful crossings." We believe it is likely that many of such "unsuccessful crossings" were due more to the elk being scared away from the boundary by the presence of people, such as Trofka and other data gatherers, than to an inability to cross through the fence. Such "unsuccessful crossings" would, of course, occur whether or not the jackleg fence was there.

5. As you are also aware, management of the populations of Yellowstone Park's herds of elk, deer and antelope, in rough balance with available habitat resources, is currently provided by state fish and game departments through hunting regulations and policies. In the area north of Yellowstone National Park this includes not only traditional Fall big game hunting, but also the special Gardiner Late Elk Season administered by the Montana Department of Fish, Wildlife and Parks (DFWP).

The DFWP has designated the area of the Royal Teton Ranch adjacent to Yellowstone Park as within the late hunt boundaries due to the need to control excessive elk populations in the region. This hunting season ran through portions of December, January and February during each of the years in which Scott's data was being collected.

Due to the nature of the hunt, much of the activity occurs near the Park boundary. Also, as you know, because hunting is allowed outside of the Park and prohibited inside, migratory elk have apparently come to understand the Park as a "safe haven" and will readily run back just inside the boundary represented by the fence when spooked or threatened. Migrating elk have been observed crossing the fence during both day and night periods. Naturally, when hunters or hunting activities are present (4 days out of every week), elk approaching the fence may be temporarily spooked away from the fence.

Again, like the disturbance caused by D. L. Trofka, this would be true whether or not a jackleg fence were present. However, again these would likely have been recorded as "unsuccessful crossings." I found no discussion of any of these factors in Scott's report.

6. No data of any kind was included in Scott's report to indicate how many "unsuccessful crossings" may have occurred prior to the installation of the jackleg fence when the barbed wire fence was present. Without any such data, the effort to compare the effects of a wire fence in this location with those of the jackleg fence are pure conjecture. Of some interest to us is the question of whether a success rate of at least 90% (Scott's jackleg fence data) on the first attempt at crossing under the unique conditions present here would be considered "good" or "bad."

7. No data of any kind was included in Scott's report to indicate the detriment which can be caused by a barbed wire fence in an area of migratory elk movements. We are aware of problems with such fencing encountered by the National Park Service in the movement of elk in and out of Rocky Mountain National Park (copy of article on the subject enclosed). This information confirms our experience (referenced above) of injuries caused to migratory animals, particularly elk cows and calves, by the barbed wire fence previously in place. Scott's report included no consideration of the Rocky Mountain National Park data.

8. The contention that a wire fence is less costly than a wooden jackleg fence fails to take into account the high costs of maintenance and repairs needed annually to wire fencing under the conditions present in this area. Due to the movements of large numbers of animals in and out of the Park, particularly at night, the wire fences are largely knocked down and many posts are bent or broken each year. A tour along the county road adjacent to the Royal Teton Ranch during the Spring would immediately confirm this assertion.

By contrast, experience has shown us that the jackleg fence has required little or no annual maintenance. Extended over a reasonable anticipated life of a fence, the jackleg fence is at least as economical as a barbed wire fence--though higher in initial capital costs.

* * * * *

As discussed above, we believe that the research report submitted by M. Douglas Scott is deficient in numerous respects and that his data can only be considered as preliminary due to the many unique and extraordinary conditions in existence when it was collected. Without question, more study and data collection will be needed in order to reach any meaningful conclusions. In doing so, we recommend that steps be taken to correct the deficiencies and take the additional factors brought to your attention in this letter into account in collecting and interpreting the data.

Notwithstanding the above analysis, we have noted the recommendation in the report of providing one opening with wire (instead of wooden rails) approximately every 100 meters. This would equate to a total of 38 openings over the length of the existing fence. Currently, there are a total of 22 such openings, or an average of one every 173 meters.

We recognize the interest Yellowstone Park has in maintaining the health and balance of all of its natural resources, including its populations of elk, deer and antelope that have established historical patterns of seasonal movement in and out of the Park. We wish to be sensitive to this and are willing to adjust our activities where appropriate to ensure that no undue damage occurs to either public or private resources.

We are willing at this time to accommodate your request to add additional openings into the fence to ensure that plenty of avenues exist for the migration of elk, deer and antelope across the Yellowstone Park boundary. However, rather than replacing wooden rails on the fence with wire, the openings will be fitted with sliding wooden rails similar to the ones now in place. This will allow the openings to be closed when necessary (such as when domestic livestock are present), and otherwise to be left open with no obstructions whatsoever.

We believe this will be a satisfactory solution to the concerns you have raised. We do not believe that replacement of the fence, as suggested by you, is warranted either by the information you have submitted or by actual circumstances as we have observed them over a three-year period. Rather than there being any problems with elk, deer or antelope migrations, there appear to be errors in the methodology and interpretation of the data you have been given. Please let me know if you would care to discuss this matter further.

Very truly yours,

CHURCH UNIVERSAL AND TRIUMPHANT, INC.

Edward L. Francis
Vice President and Business Manager

ELF:tcb

Enclosure

cc: Secretary of the Interior

ATTACHMENT 23

Rocky Mountain News Tues., Sept. 25, 1990

Fence-razing project to let elk migrate

Volunteers to remove 25 miles of barbwire

By Gary Gerhardt

Rocky Mountain News Staff Writer

The Rocky Mountain Elk Foundation has rounded up a dozen volunteers to help the Colorado Division of Wildlife and an Estes Park homeowners association remove 25 miles of barbwire fence impeding elk migration from Rocky Mountain National Park.

State wildlife officers say 10 to 20 park elk are killed or have to be destroyed each year after tangling with barbwire fences.

Marty Holmes, field director of the elk foundation, said his organization donated $2,500, and Wheeler's Country Store in Loveland donated gloves and other equipment to help take down the abandoned fences.

The Rocky Mountain Elk Foundation is an international, nonprofit wildlife conservation organization based in Missoula, Mont.

Alan Aspinall, president of the North End Property Owners Association in Estes Park, said most of the fences north of Rocky Mountain National were constructed when the MacGregor Ranch was an operating cattle ranch until the 1950s.

Now, about 1,700 elk summer in Rocky Mountain National Park, and each fall 500 to 600 migrate north out of the park to their winter range.

"When the herd moves through this area, the young calves try to keep up, but some get tangled while attempting to jump fences," Aspinall said.

"Last February, right in front of my gate, a young elk tried to jump a fence, tangled its feet in the wire, did a somersault, and broke its back."

Aspinall said he, district wildlife manager Rick Spowart, and three volunteers took down eight to 10 miles of wire last year, but the donations, along with increased number of helpers, should enhance this fall's effort.

"Right now I have 22 landowners who have agreed to have the wire removed from around their places," he said.

"If the weather holds and we get enough help, maybe we can finish the project this year."

Anyone who would like to help in the effort should call Aspinall in Estes Park at 586-3632.

MANAGEMENT OF YELLOWSTONE BISON

Developed in the spirit of cooperation by citizens representing conservation, environmental, ranching, landowner, wildlife, and sportsman interests:

John Ragsdale, Ragsdale Simmentals, local rancher
Jim Richard, Montana Wildlife Federation
Kara Ricketts, Greater Yellowstone Assoc. of Conservation Districts
Michael Scott, The Wilderness Society
Jeanne-Marie Souvigney, Greater Yellowstone Coalition
Leroy Ellig, retired Fish, Wildlife, and Parks regional supervisor
Edward Francis, Royal Teton Ranch, local landowner
Robert Gibson, retired forest supervisor

(Nikki Price, Medicine Wheel Alliance, was consulted throughout our discussions)

Technical Advisors:

John Cada, Montana Department of Fish, Wildlife, and Parks
Rich Inman, U.S. Forest Service
Rich Klukas, Yellowstone National Park
Larry Stackhouse, Montana State University Veterinary Research Lab

ATTACHMENT 24

BACKGROUND

Yellowstone National Park, which became the world's first national park in 1872, is recognized internationally for its biological, geological, and cultural significance. It is the strategic core of a vast, upland wild area, and is surrounded by multiple-use public and private land.

Yellowstone's highly varied vegetation supports a wide variety of plant-eating animals. Among them are an array of large ungulates, including bison. These bison, which constitute some of the last free-roaming bison in the country, are considered by many Americans to be a national treasure, an exciting reminder of the much larger free-roaming herds that once inhabited the northern plains. The bison of Yellowstone have long been a special attraction to park visitors.

The Yellowstone bison population winters in three major areas of the park: the Northern Range (Lamar Valley) and Pelican Valley are the smallest herds and Mary Mountain (Hayden Valley-Firehole River) is the largest. Intermixing among the three subpopulations occurs, primarily during the summer season. In recent years, increasing bison populations have migrated during the winter months from within the park to outside the park.

Virtually all of the bottom land along the Yellowstone River north of Yellowstone National Park to Yankee Jim Canyon, as well as the open bottoms and basins of major tributaries are in private ownership. The Hebgen Lake area is primarily public land, with some private land in the area.

The group developed common goals and objectives to be used for consideration in development of our alternative. The group recognized that the alternative is an experimental proposal.

Goal: Maintain sustainable herds of wild bison in balance with available resources.

Objectives:

1. Maintain a self-sustaining population of bison.

   -Recognize that bison are wildlife.

   -Recognize Park Service management objectives to maintain a natural, viable, and free-roaming bison population in the Park, with emphasis on minimizing human impacts on natural animal population dynamics.

   -The Park Service will manage bison populations in accordance with range capacity within the Park.

   -Allow opportunities, to the extent possible, for bison to migrate to bison management areas outside Yellowstone National Park, recognizing that the population is to reside primarily in the Park.

   -In bison management areas outside the Park, populations will be based on range capacity.

   -Provide national sport hunting opportunities for bison.

2. Protect local domestic livestock in the area surrounding the Park by reducing the potential for transmission of the brucella organism.

   -Scientifically determine actual brucellosis infection within bison, risk of transmission of brucellosis between bison and cattle, and potential for transmission between cattle and bison and/or other wildlife.

   -Use appropriate measures to prevent contact between bison and susceptible livestock.

   -Investigate scientific means available to control and/or minimize brucellosis infection.

-Insure that Montana retains its "brucellosis-free" status in accordance with Animal and Plant Health Inspection Service (APHIS) requirements.

3. Reduce the potential for bison-human conflicts and property damage caused by bison outside the Park.

   -Outside the Park, bison should be dealt with in the context of threats to property, persons, or public safety, and similar to the ways other animals that pose such threats are dealt with, i.e. "depredation control."

   -The responsible agencies will respond quickly and and effectively to any problem bison (s), recognizing that a large number of bison can, in itself, be a problem.

   -Responsible agencies will develop and adopt written action plans that will insure that problem bison are responded to quickly and effectively.

   -When management actions are necessary within bison management areas or on private property, hazing, trapping, transporting, hunting, or killing will be used.

CITIZENS ALTERNATIVE

During the winter months, the Yellowstone and Madison River valleys form natural topographic routes for bison migration outside the Park. In recent years, the bison have moved out of the Park onto U.S. Forest Service and private lands. The major migration has been to the north. Late winter migration movements of bison cow and calf herds in small numbers have occurred on the West boundary near West Yellowstone.

The bison movement to "bison vacant" lands outside the Park will probably continue. This alternative recognizes that select areas adjacent to and within the Park would be used to manage bison migration while still protecting private property. Bison will be allowed to migrate only to specially designated areas on suitable public lands referred to as "bison management areas." Bison management areas exclude townsites and private property. Any extension of bison migration outside of bison management areas will occur only under willing landowner conditions. Compensation for such agreements is appropriate. We recommend that the agencies work closely with APHIS to insure that Montana retains its "brucellosis-free" status.

The proposed western bison management area is bounded by Hebgen Lake and the campground road east of the South Fork of the Madison River. It excludes the townsite of West Yellowstone and any private property. Summer use by bison in this area is conditional on willing changes in current cattle grazing permits. The northern bison management area includes Deckard Flats and extends northwest near the south hydrologic divide of Little Trail Creek and north and east of U.S. Highway 89, excluding the townsites of Gardiner and Jardine and any private property. There are no cattle permits in this management area.

Management Within Bison Management Areas

Bison within bison management areas will be managed under generally acceptable wildlife management principles as directed by Fish, Wildlife, and Park personnel. Range capacities will be carefully monitored. When bison are threatening people, property, or public safety, consideration will be given to efforts to haze, herd, hunt, transport, or kill bison. Any harvesting or transporting of bison should be done in a humane manner. Hunting of bison and the associated season will be at the discretion of the Montana Fish and Game Commission. Hunting will be administered by the Montana Department of Fish, Wildlife, and Parks and done in a manner that maximizes the character of sport hunting and minimizes agency supervision. Permits should be available on a random draw basis to any qualified hunter. We recommend that hunting, subject to the laws of the State of Montana, begin within the near future for the Mary Mountain herd in the vicinity of West Yellowstone because of the terrain and existing security cover. While we expect that hunting can occur in the future in the northern bison management area, the Fish and Game Commission will make appropriate determinations.

Management Outside of Bison Management Areas or Yellowstone National Park

Efforts to haze, herd, transport, or kill bison will be made by personnel from Fish, Wildlife, and Parks, the National Park Service, and the U.S. Forest Service in areas outside of specially designated management areas. Bison threatening public safety, private property, and/or people will be dealt with in a timely, responsible manner.

Trapping

Traps will be established in three areas at or near the Park boundary to protect private property from migrating bison and to control populations. The traps will be located west of the Yellowstone River at Stevens Creek, inside the boundary of the

Park, east of the river at the most advantageous point approaching the south hydrologic divide of Little Trail Creek and south of Grayling Creek at Horse Butte Peninsula. Bison attempting to migrate north will be trapped. Historically, the largest numbers of migrating bison have attempted to move north in the Stevens Creek area. In the Mary Mountain herd, bison migrating north on Horse Butte Peninsula will be trapped directly south of Grayling Creek. The National Park Service, State of Montana, and Forest Service will support the initial costs of constructing the three trapping facilities. We recommend that the National Park Service assume the largest share of the costs.

Trapped bison will be offered live to Indian tribes or other appropriate parties if they can meet the governmental requirements, applicable to state and federal brucellosis regulations. Bison may be transported to the Lamar Valley if low populations warrant such action. Bison not taken under those conditions will be transported to slaughter. The meat will be auctioned/and or donated to eligible organizations, including the Salvation Army or Indian tribes. The auction will be administered by the State of Montana. Funds received from the auction will be used to support the bison management program. A long term goal of the program is financial self-sufficiency.

Artificial Feeding of Bison

No artificial feeding of free roaming bison is allowed at any location.

Education, Research and Communication

An aggressive educational effort should be part of the long term management plan, and involve state as well as federal agencies. Yellowstone National Park should be the leader in developing these educational efforts. This public information effort should inform the public about the various components of the long range plan, clarify issues about brucellosis, and explain on-going research efforts.

Research efforts should continue in an attempt to document brucellosis infection within bison; risk of transmission of brucellosis between cattle and bison, including critical periods and conditions for transmission; and potential for transmission between cattle and bison and/or other wildlife. Options to minimize the threat of brucellosis transmission should also be addressed. Research results should be continually incorporated into educational programs.

The agencies are encouraged to communicate with landowners about the short and long term goals of the bison management plan.

Annual meetings with landowners are appropriate. Landowners must be assured that the responsible agencies can and will respond quickly and effectively to problem bison.

Agency Action Plan

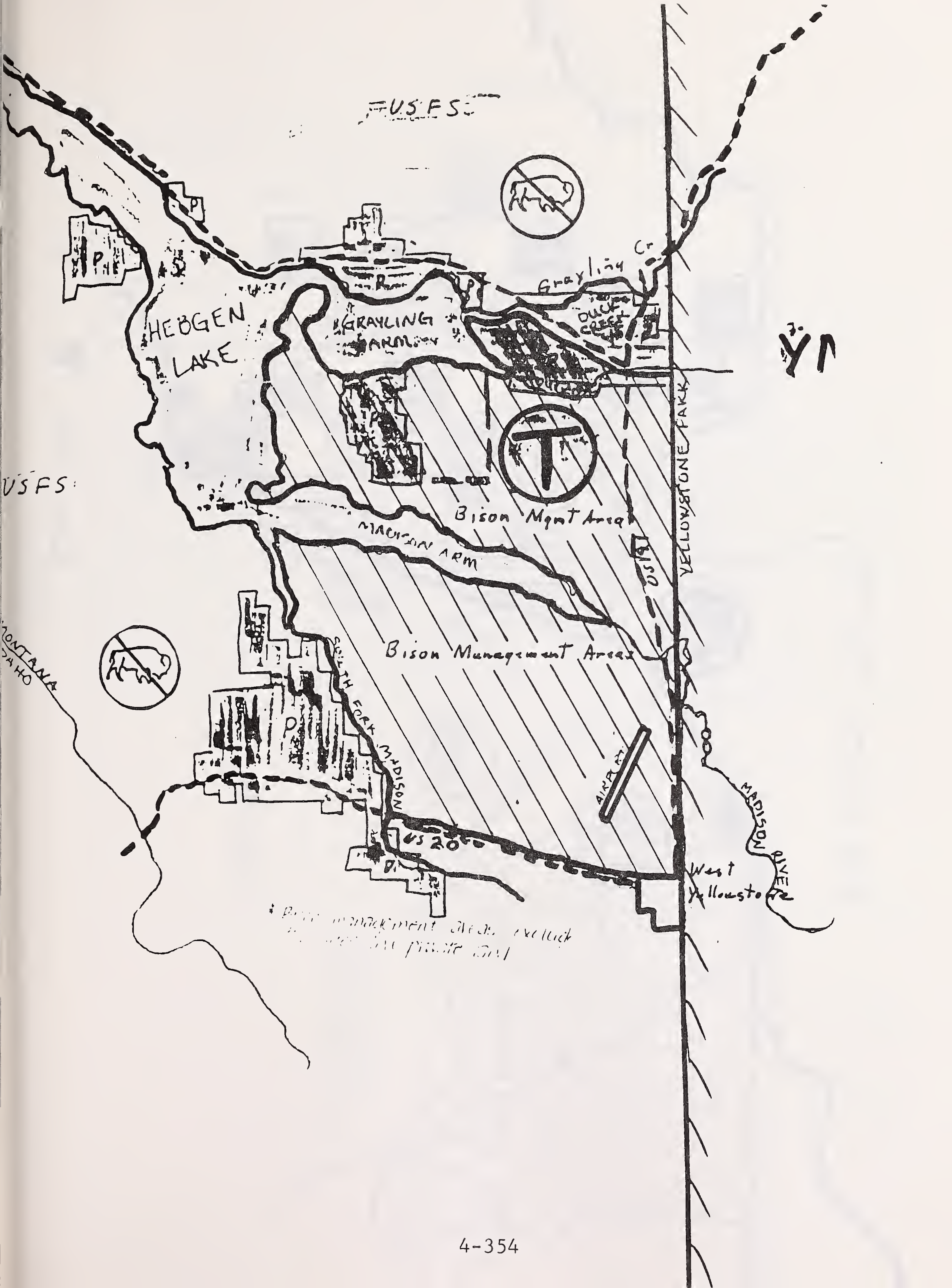
The agencies must develop a working action plan to insure that management actions are carried out effectively and expediently. This plan must include:

-Landowners must be provided with a local contact and two back up contacts within the Montana Department of Fish, Wildlife, and Parks; the National Park Service; and the U.S. Forest Service in the event of problem bison. Landowners must not be placed in the situation of calling several individuals within all agencies to receive prompt action in dealing with bison.

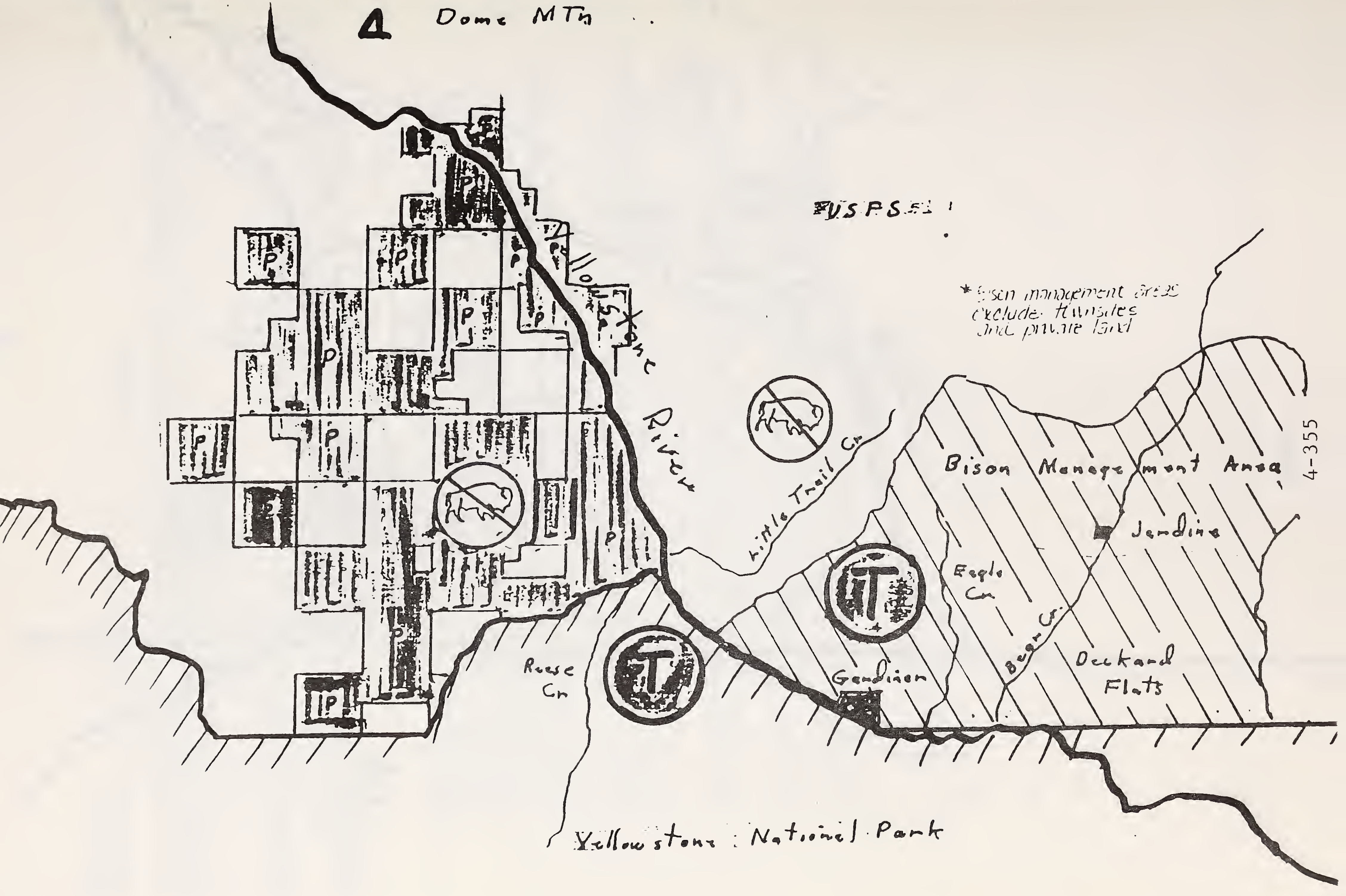
-In the event of severe winters, the agencies must be ready to respond quickly and effectively to mass migrations. An "action plan" should be developed to deal with these situations.

-The National Park Service should educate Park visitors on the bison management plan as soon as it is adopted.

-The working group that developed this proposal will continue to be "on-call" and available to agency personnel for consultation or interpretation of the bison management plan and/or future bison management direction.



* Bison management areas exclude [illegible] private land



* Bison management areas exclude townsites and private land

MAP KEY

P	Private Property
▨	Bison Management Areas
T	Bison Trap

Bison Management Citizens
Working Group
P.O. Box 176
Bozeman, MT 59771
May 15, 1991

Superintendent Robert D. Barbee
P.O. Box 168
Yellowstone National Park, Wyoming 82190

Dear Superintendent Barbee:

A small group of citizens representing conservation, environmental, ranching, landowner, wildlife, and sportsman interests has been meeting nearly once a week since early March to formulate a proposal for management of Yellowstone bison. We have developed long-range goals and objectives for management of the bison and also have outlined a detailed plan for accomplishing our goals and objectives. Our intent has been to formulate a well balanced plan, satisying diverse interests and management perspectives.

ATTACHMENT 25

We are pleased to transmit our proposal to you. We are available to meet with you to discuss the plan in further detail or to assist in any future bison management long-range plan actions. If you have questions please call the chairperson of our working group, Kara Ricketts, at (406) 586-9333.

Your careful consideration of our proposal is appreciated.

Sincerely yours,

John A. Ragsdale
John Ragsdale, Ragsdale Simmentals
Local rancher

Jim E Richard
Jim Richard
Montana Wildlife Federation

Kara Ricketts
Kara Ricketts
Greater Yellowstone Assoc. of Conservation Districts

Michael Scott
The Wilderness Society

Jeanne-Marie Souvigney

Jeanne-Marie Souvigney
Greater Yellowstone Coalition

Leroy Ellig
Retired Fish, Wildlife, and Parks Regional Supervisor

Edward Francis, Royal Teton Ranch
Local Landowner

Robert S Gibson

Robert S. Gibson
Retired Forest Supervisor

ATTACHMENT 26

County zoning plan would hike 20-acre provision

By CRAIG REESE
Enterprise Staff Writer

After months of quiet work by a committee of the Park County Planning Board, the board Thursday night took a major step toward zoning the rural and unincorporated areas of the county.

The board unanimously voted preliminary approval of the text of an interim zoning resolution for Park County, and tentatively scheduled at least one public hearing on the resolution for next month.

The proposed resolution would create seven types of zoning districts, and perhaps the biggest change in the way subdivisions have been developed in the county would come in the requirements for the "agricultural" zone.

Under the resolution, land zoned agricultural could not be divided into lots smaller than 40 acres. Current law permits divisions of 20 acres or more without board review, and divsions of less than 20 acres with board review.

If adopted by the county commissioners, the interim ordinance would be in effect for one year, and could be extended for another year by the commissioners.

The resolution is designed to be in effect while a master plan and permanent zoning regulations are being written. That lengthy process was set in motion by the board early last year.

Board Chairwoman Jackie Shiplet said the interim resolution is needed because writing a master plan is made nearly impossible by new subdivisions being proposed as it is written.

Board member Dave Howe, who helped write the resolution, said the board was "forced" to write it because "we feel developers have taken advantage of the county."

But board member Jim Warfield, who also worked on the text, added, "a lot of people are going to scream" at the 40-acre provision.

The resolution would not apply to the cities of Livingston or Clyde Park, or to the 4½-mile radius around the city of Livingston under the jurisdiction of the City-County Planning Board.

In addition, a provision is included to permit the county commissioners to exclude Gardiner, Wilsall, Cooke City and Silvergate and their adjacent areas.

Another provision of the resolution prohibits "the nominal sale of a parcel or parcels to a separate individual or entity, or the separation of parcels by gift, deed or any other method to avoid the provisions of this resolution."

And the penalty for violating the resolution would be a $500 fine or six months in jail or both, for each day the violation continues.

Besides the agricultural zone, zones created would be:

—R-1, for existing rural subdivisions not served by public water and sewer services. The minimum lot size permitted would be one acre, the same minimum required by state sanitary regulations.

—R-2, a single-family residential district with a minimum lot size of 3.500 square feet if served by both public sewer and water, and 20,000 square feet if served by one or the other. The 20,000 square feet minimum is also part of state sanitary regulations.

—R-3, a district for duplexes and multi-family residences. The minimum lot size would be 3,500 square feet for one unit, 5,250 square feet for two units, and an additional 1,500 square feet for each additional unit.

—Commercial, a district for businesses and services, with a minimum of 3,500 square feet.

—Industrial, for warehousing, manufacturing, processing and mining, with a minimum of 7,000 square feet.

—And RMO, for mobile home developments, with a minimum of 5,000 square feet.

The resolution also includes minimum requirements for setback from streets, maximum height limits and minimum distances from streams, creeks, rivers and lakes.

Pete Story of Emigrant, a state senator who has opposed tightening of state subdivision regulations in the Legislature, attended the board's Thursday night hearing with a state law book in his hand.

But Story did little arguing against the proposed resolution. Instead, he asked a number of questions about the details of it.

Story asked the board if a farmer would be permitted to build a bunkhouse or a garage on land zoned agricultural

City-county planner Mike Ross responded by pointing to the uses permitted in agricultural zones under the resolution, and to a provision creating a county zoning commission and a county board of adjustments.

Single family residences are permitted in agricultural zones under the resolution, as are second residences for family members or farm or ranch help.

Also permitted in agricultural zones are timber harvesting, commercial guide services, public schools, game farms and oil and gas exploration and production.

The resolution would also create a county board of adjustments, appointed by the county commissioners, authorized to decide on requests for zoning variances.

The board of adjustments would be directed to decide on variance requests based on whether they would first, "preserve and encourage" agriculture, and second, "permit recreation-oriented uses." The board would be allowed to attach conditions in granting variances.

Specific land uses cited as eligible for variances by the resolution include seasonal trailer parks, guest ranches, commercial feed lots and "other uses determined by the board to be consistent with the intent and purposes of this resolution."

Board of adjustments decisions could be appealed to the county commissioners.

But Story's greatest concern was that areas such as Emigrant and Chico not be zoned agricultural, thereby limiting expansion of commercial enterprises in those areas.

Ross said that concern would be allayed when the zoning maps to accompany the text of the ordinance are completed, a job County Planner Clement Kalitowski — for whom the board observed a moment of silence to open its meeting — was working on when he passed away recently.

Ross said about 15 or more different maps would be prepared, and the zoning would reflect the non-agricultural makeup of areas like Emigrant, Pine Creek and Yankee Jim Canyon.

The resolution text also designates the planning board as zoning commission for the county, empowered to consider changes in the zoning maps and make recommendations to the county commissioners.

Once the maps are completed, the planning board must hold another meeting to vote on them. If the maps are approved, Ross will advertise a public hearing, now tentatively planned for the last week in February at the city-county complex.

After the hearing — and Ross suggested additional hearings could be held at Gardiner, Wilsall or Cooke City — the board would again meet to consider any changes suggested. If approved again, the text and maps would then go to the county commissioners for final approval.

Copies of the proposed resolution are available from Ross at the city-county complex

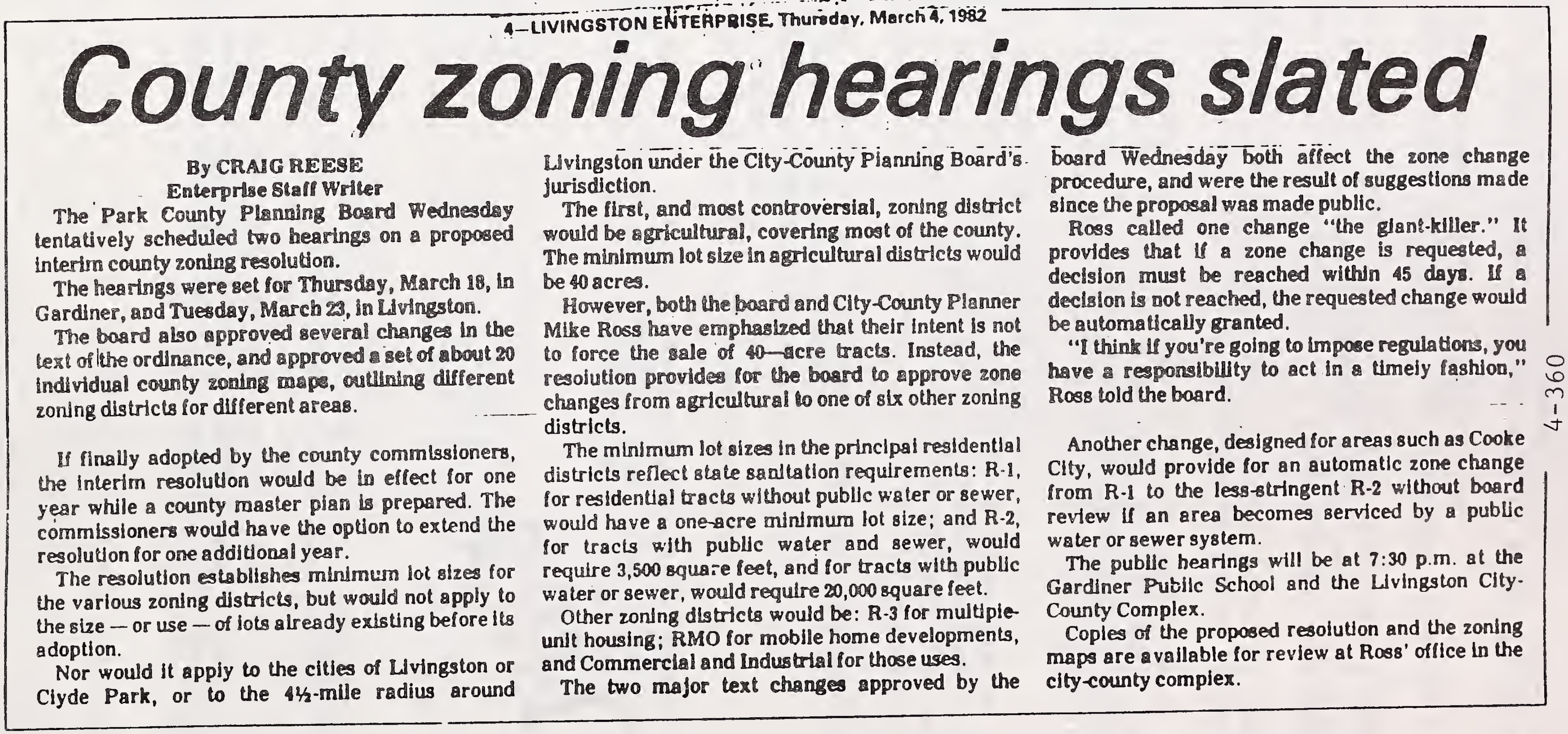
A Yellowstone Newspaper

livingston
enterprise

Vol. 71—No. 137—Livingston, Montana, Friday, January 29, 1982—Twenty Five Cents

4-359

ATTACHMENT 27



4—LIVINGSTON ENTERPRISE, Thursday, March 4, 1982

County zoning hearings slated

By CRAIG REESE
Enterprise Staff Writer

The Park County Planning Board Wednesday tentatively scheduled two hearings on a proposed interim county zoning resolution.

The hearings were set for Thursday, March 18, in Gardiner, and Tuesday, March 23, in Livingston.

The board also approved several changes in the text of the ordinance, and approved a set of about 20 individual county zoning maps, outlining different zoning districts for different areas.

If finally adopted by the county commissioners, the interim resolution would be in effect for one year while a county master plan is prepared. The commissioners would have the option to extend the resolution for one additional year.

The resolution establishes minimum lot sizes for the various zoning districts, but would not apply to the size — or use — of lots already existing before its adoption.

Nor would it apply to the cities of Livingston or Clyde Park, or to the 4½-mile radius around Livingston under the City-County Planning Board's jurisdiction.

The first, and most controversial, zoning district would be agricultural, covering most of the county. The minimum lot size in agricultural districts would be 40 acres.

However, both the board and City-County Planner Mike Ross have emphasized that their intent is not to force the sale of 40—acre tracts. Instead, the resolution provides for the board to approve zone changes from agricultural to one of six other zoning districts.

The minimum lot sizes in the principal residential districts reflect state sanitation requirements: R-1, for residential tracts without public water or sewer, would have a one-acre minimum lot size; and R-2, for tracts with public water and sewer, would require 3,500 square feet, and for tracts with public water or sewer, would require 20,000 square feet.

Other zoning districts would be: R-3 for multiple-unit housing; RMO for mobile home developments, and Commercial and Industrial for those uses.

The two major text changes approved by the board Wednesday both affect the zone change procedure, and were the result of suggestions made since the proposal was made public.

Ross called one change "the giant-killer." It provides that if a zone change is requested, a decision must be reached within 45 days. If a decision is not reached, the requested change would be automatically granted.

"I think if you're going to impose regulations, you have a responsibility to act in a timely fashion," Ross told the board.

Another change, designed for areas such as Cooke City, would provide for an automatic zone change from R-1 to the less-stringent R-2 without board review if an area becomes serviced by a public water or sewer system.

The public hearings will be at 7:30 p.m. at the Gardiner Public School and the Livingston City-County Complex.

Copies of the proposed resolution and the zoning maps are available for review at Ross' office in the city-county complex.

DRAFT
4/27/82

FINDINGS OF NECESSITY

It is found by the County Board of Commissioners of Park County as follows:

WHEREAS, the cumulative effect of uncontrolled development will eventually result in a large semi-urban area which cannot be served efficiently with urban utilities and services; and

WHEREAS, if no control is applied to the development of the rural portions of the county, those services presently financed by tax revenues will be greatly expanded, to-wit:

a) maintenance and snow clearance of the county road system
b) law enforcement manpower and facilities
c) fire protection manpower and facilities
d) social services and education
e) garbage collection, and

DRAFT

WHEREAS, without controls on development, additional services, not presently provided by county government, but also constituting a liability against tax revenues, will ultimately be required, to-wit:

a) sewer lines and sewer treatment plants
b) storm drainage lines
c) water lines and water treatment plants
d) street lights; traffic signals
e) additional types of social services not now required, and

WHEREAS, either the expanded or the added governmental services, or the combination of both, will require burdensome and excessive taxation to support; may not be supportable by the economic base of the county; and will require financial assistance from State or Federal Government; which cannot be assured, and

WHEREAS, the agricultural portion of the ecomonic base of the county will be destroyed by reducing its agricultural lands into parcels too small for agricultural use, and has already been seriously diminished by such breaking up of ranches and farms, and

WHEREAS, no provision of State law and no other type of remedy capable of correcting the aforementioned conditions is available now, and

WHEREAS, the platted townsites in Park County presently do not have any regulations to control the location, size and bulk of buildings on lots, nor the various uses of the land within the townsites, and

WHEREAS, zoning regulations in the platted townsites are necessary to promote the public health and safety, and

WHEREAS, the County Commissioners are in good faith conducting studies leading to the adoption of a comprehensive plan and permanent land use regulations, and has in the course of adopting this Interim Resolution considered the general nature of the plan and land use egulations that will be necessary to avoid the conditions which will result from uncontrolled development, as set forth in these Findings of Necessity.

NOW THEREFORE BE IT RESOLVED, there is a clear and present need for the adoption of this Interim Resolution to protect the health, safety and welfare of the residents of Park County, pending the adoption of a comprehensive plan for the area described in the Interim Regulations or pending some form of permanent regulation as may be permitted by revision of State Law.

TITLE

The title of this Resolution shall be: THE INTERIM ZONING RESOLUTION OF PARK COUNTY.

AUTHORITY

Authorization for this Interim Resolution is contained in "Part 2 County Zoning" of the Montana Planning and Zoning Enabling Legislation; specifically in Montana Code Annontated 76-2-206.

DESCRIPTION: INTENT

This Resolution establishes interim regulations governing lot size, the location of buildings on the lot, bulk of buildings and the use of land. The Resolution will be in effect for one (1) year and may be extended for an additional year until studies are completed and permanent regulations are adopted. The City-County jurisdictional areas adjacent to Livingston and the Cities of Livingston and Clyde Park are excluded. The intent of the Resolution is to preserve economic investment in agriculture while still allowing for residential growth and development in the county, and to foster commercial and non-commercial recreation together with agriculture in rural Park County, and to promote orderly growth in the platted townsites and their immediate areas.

PURPOSES

The purposes of this Interim Resolution shall be:

a) To prevent damaging subdivision and development of agricultural land until studies are completed and permanent regulations are established.

b) To maintain and strengthen the economy of the county by preventing the financial drain of serving scattered urban development, and by preventing further deterioration of the agricultural portion of the county's economic base.

c) To channel new development and substantial increases in population to the established City of Livingston and its immediate area, and other established towns in Park County.

d) To encourage agriculture and tourism as compatible activities in order to maintain the economic health and natural attractiveness of rural Park County.

e) To promote the interest of health, safety, and general welfare, and to facilitate the economic provision of adequate transportation, water services, sewer services, schools, parks and other public requirements.

DEFINITIONS

Accessory Buildings: A building or structure which is subordinate to, d the use of which is incidental to that of the main building, ructure or use on the same lot. Garages, storage sheds, pump houses, and similar structures shall be considered accessory buildings.

Agriculturally Related Structures: Structures or buildings which are used solely in the promotion of agricultural pursuits, and shall not be constructed for human habitation. Hay sheds, barns, silos and other similar structures shall be considered agriculturally related structures.

Agricultural Uses: A use of land for cultivation, grazing, pasturage; including land not in productuve use, dairying, animal and poultry husbandry, bee keeping, horticulture, and installation and operation of power sources and machinery associated with agricultural uses.

Division of Land: The segregation of one or more parcels of land from a larger tract held in single or undivided ownership by transferring, or contracting to transfer, title to or possession of a portion of the tract, or by filing a Certificate of Survey establishing the identity of such segregated parcels with the Clerk and Recorders office.

Extended Family: For the purposes of this resolution shall be defined as the land owners immediate family in a first degree relationship. An example would be father-son, by blood or adoption (Attorney Generals opinion, Volume #35, Opinion #70).

me Occupation: An occupation or profession conducted entirely within a dwelling and carried on by the inhabitant thereof which use is clearly incidental and secondary to the dwelling purposes and does not change the character thereof, provided that no more than 25% of the dwelling unit total area may be used for the home occupation.

There shall be no change in the outside appearance of the building or premises or other visible evidence of the conduct of such home occupation.

No equipment shall be used in such a home occupation which creates noise, vibration, glare, fumes, odors or electrical interference; no equipment or process shall be used which creates visual or audible interference in any radio or television receivers off the premises.

Planning Board: The Park County Planning Board as appointed by the Park County Board of Commissioners.

Planned Unit Development: A land development project consisting of residential clusters, industrual parks, shopping centers, or office building parks, or any combination thereof which comprises a planned mixture of land uses built in a prearranged relationship to each other and having open space and community facilities in a common ownership or use.

Single Family Residence: A residential structure with one (1) kitchen d designed for and occupied by one (1) or more persons as a single housekeeping unit.

Zoning Coordinator: The Park County Planner or other individual as y be designated by the Park County Planning Board.

ZONING DISTRICTS

To carry out the provisions of this Resolution, Park County is hereby divided into the following districts in which the erection, construction, alteration, reconstruction, repair or use of buildings, structures and land shall be regulated and restricted.

A - Agricultural
A district designed to preserve land for agricultural and related uses. A minimum of 40 acres is required for the construction of a dwelling unit. The harvesting of timber, commercial guide services, oil and gas exploration and production are permitted and hard rock mineral core drilling for exploration.

C - Commercial
A district primarily intended to be used by a variety of businesses and services, travel trailer and mobile home parks.

I - Industrial
A district primarily designed to provide sites for warehousing, assembling of products, processing of products, manufacturing and mining operations.

R-1 - Residential
A district created to accommodate rural subdivision tracts including those that are tracts of record as of the date of the adoption of this resolution.

R-2 - Low Density Residential
A district for use as single family residences and customary residential accessory uses. Lots must be served with public water and/or sewer services.

R-3 - Medium Density Residential
A district for duplex and multi-family residential uses and customary accessory uses. Lots must be served with public water and sewer services.

RMO - Residential Mobile Home
A district designed to accommodate mobile home courts that utilize a common water system and septic tank disposal system.

STATE OF MONTANA)
) SS.
COUNTY OF PARK)

AFFIDAVIT

I, EVAN DODSON, being duly sworn, do depose and say:

1. That I was the Foreman of the FORBES RANCH from 1967 to 1977.

2. That the following water rights and stock uses are true and accurate:

a. In 1968 we put in two 100-horsepower 8-inch pumps--one at Cutler and one at the home ranch--and made full use of each, taking 4,000 miners inches of the Yellowstone River, using one pump to irrigate in Sections 2, 3, and 11 of T8SR7E, and the other to water land in T9SR8E, Sections 5, 6, 7 and 8, and T8SR8E, Sections 31 and 32.

b. In T8SR7E, just west of the center of Section 24 the waters of Mol Heron Creek are diverted for use on T8SR7E, Sections 13, 19 and 24; at times we diverted all of Mol Heron Creek and used at least 4,000 miners inches in this ditch.

c. I built a 25-foot-high dam in 1969 in the SE¼ of the NW¼ of Section 24 of T8SR7E which impounded about 8-acre feet of water which was used to water stock.

d. We used the Cutler pump for three years and the home ranch pump for one year, and had planned to use those rights further, in addition to also pumping from the Sidebotham area.

e. Before this time we had two five-horsepower pumps at Cutler running a total of 1,200 miners inches.

f. We ran 1,200 head of cattle at the maximum use and consistently ran 900 head.

g. In T9SR8E, Section 6, from May 15 to October 31 we ran 125 head; and from April 1 to May 31 we ran 700 head, which watered out of Spring Creek and our irrigation ditches from Reese Creek.

h. In T9SR8E, Section 7, we ran 180 head from May 15 to October 31.

i. In T9SR8E, Sections 5 and 8, we ran 225 head from October 31 to May 31.

j. In T8SR8E, Sections 31 and 32, we ran 50 head from October to May 31.

k. In T9SR7E, Sections 1 and 2, and in T8SR7E, Sections 35 and the SW¼ of Section 36, we ran 700 head for the month of June.

l. In T9SR7E, Sections 2, 10, 11, 15, 21, and that area, we ran 700 head in July and August.

m. In T9SR7E, Sections 2, 3, 9, 10 and 16, and in T8SR7E, Sections 26, 34, ~~and~~ 35, we ran 700 head in September.

n. In October we let the 700 head move down Mol Heron Creek to T8SR7E, Sections 14, 15, 23 and 24.

o. In December or January we grazed 700 head in T8SR7E, Sections 2, 3, and 11.

p. From February 1 to April 1 we had 700 head in T8SR7E, Sections 13 and 24.

q. Pipeline Creek in T9SR7E, Section 21, was used as a water source in Adlridge and below at the coke ovens and that area in T9SR8E, Section 6. A log headgate and screen were placed at the Creek in the SW¼NE¼, Section 21, T9SR7E, and a wooden pipe carried the water from there.

r. There is a spring in NW¼NW¼ of Section 35, T8SR7E which has a concrete stock tank and which is used to feed the lake below it and irrigate through a one-inch pipe.

s. We watered 25 horses from a spring in SW¼ of Section 24 T8SR7E from October to May.

Dated: April 12, 1982.

Evan Dodson
EVAN DODSON

Subscribed and sworn to before me this 12th day of

April, 1982.

Edwin L Johnson
Notary Public for the State of Montana
Residing at Corwin Springs, Montana
My Commission Expires March 8, 1985

ATTORNEY GENERAL
STATE OF MONTANA

Marc Racicot
Attorney General

Justice Building
Helena, Montana 59620

August 14, 1991

Wm. Nels Swandal
Park County Attorney
414 East Callender
Livingston MT 59047

Dear Mr. Swandal:

You have requested my opinion on the following question:

> May a bomb shelter be considered a "condominium" and thereby subjected to local review under the Montana Subdivision and Platting Act?

Because your request is fact-specific and is related indirectly to matters at issue in pending litigation, it has been determined that a letter of advice rather than a formal Attorney General's Opinion is the appropriate disposition.

Your inquiry arises from the fact that several large bomb shelters are being constructed in Park County. One shelter is capable of housing 750 people, and other shelters have capacities ranging up to 150 people. The shelters are being built on parcels of land containing 20 acres or more. The owner of the parcels has conveyed life estates or leases of various terms to individuals or groups who, in turn, sell or rent spaces in the bomb shelters.

The Montana Subdivision and Platting Act generally requires local review and approval of all "subdivisions." § 76-3-601, MCA. The term "subdivision" is defined by section 76-3-103(15), MCA, and includes "any condominium." See 39 Op. Att'y Gen. No. 14 at 50, 52 (1981). The term "condominium" is not separately defined for purposes of the Subdivision and Platting Act.

As you point out, however, a definition of "condominium" is contained in the Unit Ownership Act (§§ 70-23-101 to 1002, MCA). I agree that this definition is applicable to the term "condominium" as it is used in the Subdivision and Platting Act. See § 1-2-107, MCA; Department of Revenue v. Gallatin Outpatient Clinic, Inc., 234 Mont. 425, 763 P.2d 1128 (1988); State ex rel. Department of Health and Environmental Sciences v. Lasorte, 182 Mont. 267, 596 P.2d 477 (1979).

TELEPHONE: (406) 444-2026 FAX: (406) 444-3549

Section 70-23-102(5), MCA, sets forth the definition of this term:

> "Condominium" means the ownership of single units with common elements located on property submitted to the provisions of this chapter.

Definitions of the terms "unit," "common elements," and "property" are also provided in section 70-23-102, MCA.

In an earlier Attorney General's Opinion, it was noted that the term "condominium" can include "a variety of structural and ownership arrangements such as townhouses, multiple family dwellings, or multi-unit dwellings sold on a time-share or interval ownership basis." 39 Op. Att'y Gen. No. 28 at 108, 112 (1981).

As you indicate in your letter of inquiry, the ownership arrangement of the bomb shelters in Park County shares many of the attributes of a condominium. Purchasers or lessees of bomb shelter spaces arguably are "unit owners" of "units" of sleeping and storage areas, and the units appear to have certain "common elements." § 70-23-102(3), (8), (15), (17), MCA. However, the property upon which the bomb shelters are located has not been "submitted to the provisions of this chapter [Unit Ownership Act]," as the definition of "condominium" contemplates. This fact alone appears to place the bomb shelters outside the statutory definition of "condominium."

As the Montana Supreme Court has observed in Jordan v. Elizabethan Manor, 181 Mont. 424, 593 P.2d 1049 (1979), it is the submission of the property to the provisions of the Unit Ownership Act via a "final declaration" which permits the individual units to be "conveyed, leased, or encumbered" and to be "the subject of ownership, possession, or sale and of all types of juridic acts." § 70-23-401, MCA. It is only when the property is submitted to the Act, via a final declaration, that a unit may be individually conveyed or leased, and warranty deeds or subscription agreements would divest the owner of no interest in the property until the final declaration is filed.

Based upon the clear language of section 70-23-102(5), MCA, I conclude that an ownership arrangement for property which has not been submitted to the provisions of the Montana Unit Ownership Act should not be viewed as a condominium for purposes of the Montana Subdivision and Platting Act.

This conclusion does not necessarily mean that the bomb shelters may not be subjected to local review under the Subdivision and Platting Act. See, e.g., 40 Op. Att'y Gen. No. 57 at 229 (1984); 41 Op. Att'y Gen. No. 3 at 8 (1985). However, I find that the Act's provisions concerning condominiums would not apply to the bomb shelter projects unless the involved properties are submitted to the Unit Ownership Act.

This letter should not be viewed as a formal Attorney General's Opinion.

Sincerely,

John Paulson

JOHN PAULSON
Assistant Attorney General

WARNING: Placement of a tank directly on a hold-down pad, on a pad smaller than the total tank area, or on intermediate supports (saddles) will cause uneven distribution of loads. This may contribute to structural failure, and is never permitted.

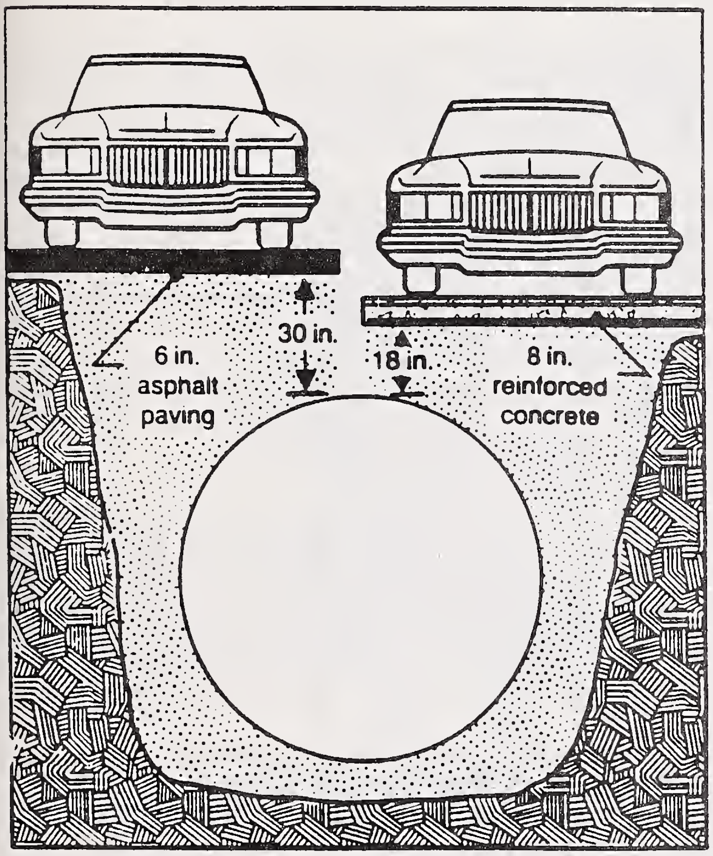


Figure 10. Depth of cover in dry areas subject to traffic. The majority of tanks are located in areas subject to vehicle traffic. Backfill helps dissipate traffic loads and offset buoyancy. Flotation is not a consideration in dry areas.

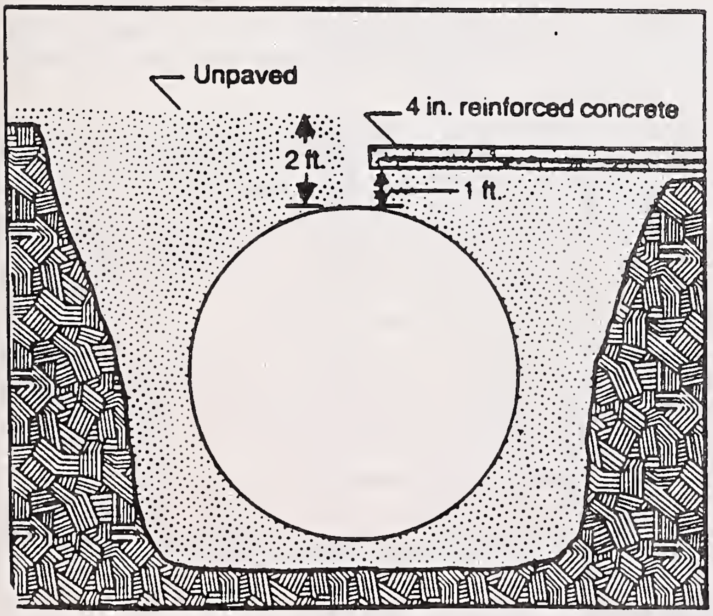


Figure 11. Depth of cover in dry areas not subject to traffic. In dry areas, not subject to traffic, cover requirements may be reduced, but this reduced depth of cover may not prevent flotation if ground or surface water enters the excavation.

3.4 Cover in Dry Areas Subject to Traffic. An area where the water table is not expected to reach the level of the bottom of the tank is considered a dry area. In dry areas, subject to vehicle traffic, cover may consist of at least 30 inches of compacted backfill and six inches of asphaltic concrete, or 18 inches of compacted backfill and eight inches of reinforced concrete. Paving over tanks in traffic areas shall extend at least one foot beyond the perimeter of the tank.

Comment

At most facilities, fully loaded transports can be expected to pass over the tank area. While some authorities require a minimum of six inches of reinforced concrete paving, we recommend at least eight inches.

3.5 Cover in Dry Areas Not Subject to Traffic. Cover in dry non-traffic areas should be at least two feet, and should consist of a minimum of one foot of backfill covered by filter fabric to prevent migration and a minimum of one foot of earth. An acceptable alternative is one foot of backfill material and at least four inches of reinforced concrete.

3.6 Maximum Burial Depth. Pressure imposed on tanks should not exceed five psig. If the burial depth is greater than the tank diameter, the manufacturer should be consulted to determine if reinforcement of the tank is required. The maximum recommended burial depth for fiberglass reinforced plastic (FRP) tanks, measured from the top of the tanks, is seven feet.

3.7 Handling of Excavated Materials. Excavated material, which cannot be immediately removed from the site,

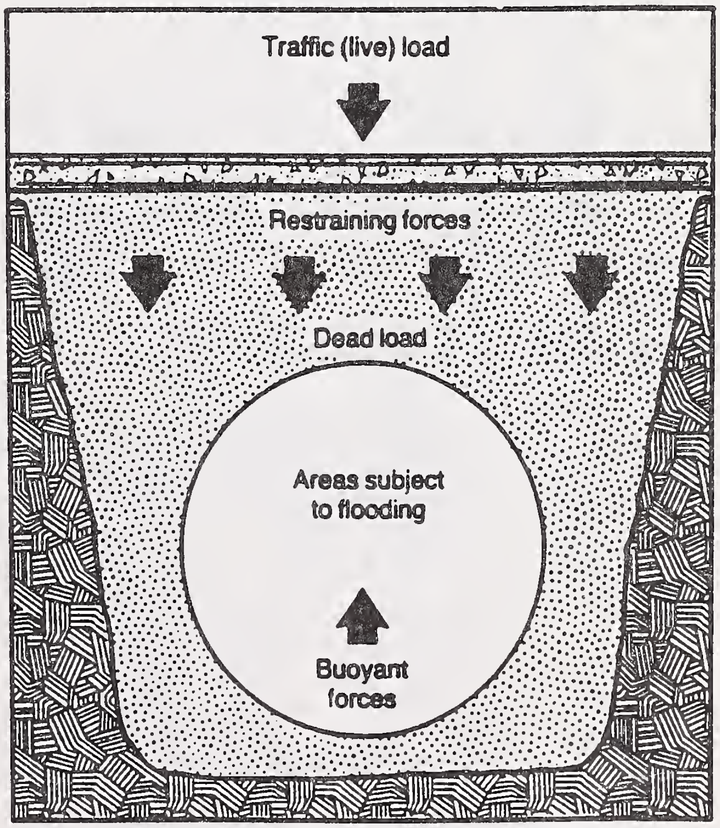


Figure 12. Areas subject to flooding. Tanks are typically buried three to four feet below finished grade to provide adequate slope for piping and protection from traffic loads. Except in areas with high water tables, or areas subject to flooding, the weight of backfill and pavement over the tank is sufficient to offset buoyancy and prevent flotation.

ATTACHMENT 31

NFPA 30 1987

2-2.6.4 Vent piping for tanks storing Class I liquids shall not be manifolded with vent piping for tanks storing Class II or Class III liquids unless positive means are provided to prevent the vapors from Class I liquids from entering tanks storing Class II or Class III liquids, to prevent contamination (*see 1-1.2*) and possible change in classification of the less volatile liquid.

2-2.7 Tank Openings Other Than Vents for Aboveground Tanks.

2-2.7.1 Each connection to an aboveground tank through which liquid can normally flow shall be provided with an internal or an external valve located as close as practical to the shell of the tank.

2-2.7.2 Each connection below the liquid level through which liquid does not normally flow shall be provided with a liquidtight closure. This may be a valve, plug, or blind, or a combination of these.

2-2.7.3 Openings for gaging on tanks storing Class I liquids shall be provided with a vaportight cap or cover. Such covers shall be closed when not gaging.

2-2.7.4 For Class IB and Class IC liquids other than crude oils, gasolines, and asphalts, the fill pipe shall be so designed and installed as to minimize the possibility of generating static electricity. A fill pipe entering the top of a tank shall terminate within 6 in. (15 cm) of the bottom of the tank and shall be installed to avoid excessive vibration.

2-2.7.5 Filling and emptying connections for Class I, Class II, and Class IIIA liquids that are made and broken shall be located outside of buildings at a location free from any source of ignition and not less than 5 ft (1.5 m) away from any building opening. Such connections for any liquid shall be closed and liquidtight when not in use and shall be properly identified.

2-3 Installation of Underground Tanks.

2-3.1 Location. Excavation for underground storage tanks shall be made with due care to avoid undermining of foundations of existing structures. Underground tanks or tanks under buildings shall be so located with respect to existing building foundations and supports that the loads carried by the latter cannot be transmitted to the tank. The distance from any part of a tank storing Class I liquids to the nearest wall of any basement or pit shall be not less than 1 ft (0.30 m), and to any property line that can be built upon, not less than 3 ft (0.90 m). The distance from any part of a tank storing Class II or Class III liquids to the nearest wall of any basement, pit or property line shall be not less than 1 ft (0.30 m).

2-3.2 Burial Depth and Cover.

2-3.2.1 All underground tanks shall be installed in accordance with the manufacturer's instructions, where available, and shall be set on firm foundations and surrounded with at least 6 in. (15 cm) of noncorrosive inert material such as clean sand or gravel well tamped in place. The tank shall be placed in the hole with care, since dropping or rolling the tank into the hole can break a weld, puncture or damage the tank, or scrape off the protective coating of coated tanks. (*See Petroleum Equipment Institute (PEI) RP 100-86, Recommended Practice for the Installation of Underground Liquid Storage Systems, for further information.*)

2-3.2.2 All underground tanks shall be covered with a minimum of 2 ft (0.60 m) of earth, or shall be covered with not less than 1 ft (0.30 m) of earth, on top of which shall be placed a slab of reinforced concrete not less than 4 in. (10 cm) thick. When they are, or are likely to be, subjected to traffic, they shall be protected against damage from vehicles passing over them by at least 3 ft (0.90 m) of earth cover, or 18 in. (45.7 cm) of well-tamped earth plus either 6 in. (15 cm) of reinforced concrete or 8 in. (20 cm) of asphaltic concrete. When asphaltic or reinforced concrete paving is used as part of the protection, it shall extend at least 1 ft (0.30 m) horizontally beyond the outline of the tank in all directions.

2-3.2.3 For underground tanks built in accordance with 2-1.3.1, the burial depth shall be such that the static head imposed at the bottom of the tank will not exceed 10 psig (68.9 kPa) if the fill or vent pipe are filled with liquid. If the depth of cover is greater than the tank diameter, the tank manufacturer shall be consulted to determine if reinforcement is required.

2-3.3 External Corrosion Protection. Tanks and their piping shall be protected by either:

(a) A properly engineered, installed, and maintained cathodic protection system in accordance with recognized standards of design, such as:

1) American Petroleum Institute Publication 1632-1983, *Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems.*

2) Underwriters Laboratories of Canada ULC-S603.1-M 1982, *Standard for Galvanic Corrosion Protection Systems for Steel Underground Tanks for Flammable and Combustible Liquids.*

3) Steel Tank Institute Standard No. sti-P_3®. *Specifications for sti-P_3® System for External Corrosion Protection of Underground Steel Storage Tanks - 1985.*

4) National Association of Corrosion Engineers Standard RP-01-69 (1983 Rev.), Recommended Practice, *Control of External Corrosion of Underground or Submerged Metallic Piping Systems.*

5) National Association of Corrosion Engineers Standard RP-02-85, Recommended Practice, *Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems.*

(b) Approved or listed corrosion resistant materials or systems, which may include special alloys, fiberglass reinforced plastic, or fiberglass reinforced plastic coatings.

2-3.3.1 Selection of the type of protection to be employed shall be based upon the corrosion history of the area and the judgement of a qualified engineer. The authority having jurisdiction may waive the requirements for corrosion protection where ex-

ATTACHMENT 33

SPRING CREEK WELL SUMMARY TABLE

I.D.	DATE DRILLED	LOCATION	DEPTH	STATIC WATER LEVEL	PUMPING RATE/METHOD	WATER TEMP	CURRENT STATUS
SC 1	4/17/86	NE¼NE¼SE¼ SEC 31 T8S R8E PARK CO.	230 ft	80 ft	150 gpm PUMP TEST	51 F	ACTIVE
SC 2	4/06/92	NE¼NW¼NE¼ SEC 6 T9S R8E PARK CO.	300 ft	117 ft	NONE	COLD	ABANDONED
SC 2-B	4/14/92	NE¼NW¼NE¼ SEC 6 T9S R8E PARK CO.	520 ft	COULD NOT BE DETERMINED	N/A	N/A	ABANDONED
SC 3	4/06/92	SE¼NW¼NE¼ SEC 6 T9S R8E PARK CO.	540 ft	COULD NOT BE DETERMINED	< 2 gpm DRILLING FLUID INCREASE	COLD	ABANDONED
SC 4	4/22/92	SW¼SE¼NE¼ SEC 6 T9S R8E PARK CO.	215 ft	145 ft	80 gpm AIR LIFT	50 F	ABANDONED
SC 4-B	4/21/92	SW¼SE¼NE¼ SEC 6 T9S R8E PARK CO.	170 ft	DRY HOLE	NONE	N/A	ABANDONED
SC 5	5/08/92	NW¼NW¼NW¼ SEC 5 T9S R8E PARK CO.	170 ft	67.7 ft	415 gpm Pump Test	50 F	ACTIVE
SC 6	5/12/92	NW¼SW¼SW¼ SEC 32 T8S R8E PARK CO.	150 ft	67.4 ft	300 gpm Pump Test	50 F	ACTIVE

STATE
OF
MONTANA
DEPARTMENT OF JUSTICE
FIRE MARSHAL BUREAU
Room 371, Scott Hart Building, 303 North Roberts, Helena, Montana 59620 (406) 444-2050

15 December 1989

Jim Cherry
Fire Chief
Church Universal and Triumphant
Box A
Corwin Springs, Montana

Dear Chief Cherry;

Enclosed is a copy of the letter I filed with the Fire Marshal Bureau in Helena. It is basically a follow up to the phone conversation I had with Bureau Chief Blehm. He expressed satisfaction with the results of our meeting and advised me to keep in touch with your organization and keep the lines of communication open.

ATTACHMENT 34

I would like to thank you and William for taking the time out of your obviously demanding schedule to escort Bob and myself through your facility. Again, I am most impressed.

Respectfully,

J. SOUSA
Deputy State Fire Marshal

STATE
OF
MONTANA
DEPARTMENT OF JUSTICE
FIRE MARSHAL BUREAU

Room 371, Scott Hart Building 303 North Roberts Helena, Montana 59620 (406) 444-2050

DATE: 15 December 1989

TO: Ray Blehm, Jr.
State Fire Marshal

FROM: J. Sousa
Deputy Fire Marshal

SUBJECT: Use Of LPG Containers underground at the Church Universal and Triumphant

This memo is a follow up of the Church Universal and Triumphant's use of LPG containers below grade and potential use of below grade appliances.

On friday, 08 December, I was escorted by Chief Jim Cherry of the Teton Ranch Fire Department, through the main facility on the ranch. The purpose of this tour was to verify the following:

1. The method in which the containers for LPG were buried underground.
2. To assure the safe usage of LPG in below ground facilities.

The following narrative is of my observations.

The records provided on site for review, verified that the containers were manufactured and certified for below ground applications. The site engineers attested to the fact that:

1. The containers had cathodic protection and were tested prior to burial.
2. Precaution was taken to avoid damage to the protective coating on the containers when installed.
3. Back fill was screened to remove rocks and debris.
4. Back fill was tamped around containers.

Use of LPG containers underground at the Church Universal and Triumphant.

While on site, I observed the following:

1. Top of containers are a minimun of 4 feet below final grade.
2. Barriers around containers to prevent loaded vehicles from driving over containers.
3. Manhole over top of containers is covered with a steel plate with a concrete pad appx. 4X4 feet extending 6" above final grade.
4. Vent pipe on relief valves were appx. 8 feet above final grade.
5. There appears to be eight containers on site, five on the east side of the main complex, and three on the west. All containers lay in a north-south configuration.

A tour was conducted by Chief Cherry into the engineering space of the underground facility to show the usage of the LP gas.

LP gas is to be used in three adjoining areas. The first is a electrical generator section. DIESEL ~~GAS~~ will power two internal combustion engines to supply electricity and supplement hot water for domestic use and space heating through a heat exchanger. LP GAS WILL POWER TWO DOMESTIC HOT WATER HEAT

Secondly to power a LPG clothes dryer in the galley area.

And FINALLY, ~~finely~~ to be utilized for food service by fueling a commercial gas range.

Each of these areas are protected by the following safety devices:

1. Below floor level and above floor level LP gas sensors wired in series to an automatic shutoff valve at the service enterance.
2. A 4" pipe installed with a 2% grade, exiting outside into the open atmosphere.

I was unable to observe the remaining two containers at the other facility (Glastonbury) due to my time schedule. Chief Cherry assured me that these containers were installed in a like manner and he would continue to monitor these containers and their usage on a regular basis.

12/20/89 - JACK CALLED WITH THE ABOVE REVISION + ADDITION

CHAPTER 5

DHES FINAL RECOMMENDATION

5.0 DHES FINAL RECOMMENDATION

After considering the information in the DEIS, FEIS, DSEIS and FSEIS, the DHES' preferred alternative is to approve the Church's proposed projects based on an addendum (Appendix A-1) to the Church and department's Mitigation Plan Agreement (February 16, 1989 - Appendix A) and recommendations.

The department's approval includes:

1. Allowing the Church to increase the permitted use of the septic system at East Gate Work Camp,
2. Developing the Spring Creek site according to the mitigation plan and recommendations,
3. Reinstalling the underground fuel storage tanks at the Mol Heron Shelter Complex according to state regulations,
4. Expanding the Golden Age Village mobile home park according to the mitigation plan and recommendations, and
5. Declaring the water and wastewater systems at the RTR-N community kitchen private systems to be reviewed by Park County.

The following is a summary of the mitigation measures proposed or recommended for impacts on various resource topics. Those mitigation measures that are asterisked (*) are recommended for consideration because of possible cumulative impacts, not because of identified primary, secondary and reasonably foreseeable cumulative impacts of the proposed development. The potential cumulative impacts of possible future development may never materialize if the Church does not engage in a large amount of development or expansion above and beyond what it has presently proposed. Therefore, the Church would be allowed to begin construction of the proposed developments contingent upon the Church's agreement to conduct the mitigation measures relative to identified primary, secondary and cumulative impacts of known activities. It is recommended that the Church consider the asterisked mitigation measures in its future planning, particularly if any large-scale development beyond the current proposals is considered in the future. All applicable provisions of the Mitigation Plan Agreement (Appendix A) in the FEIS will continue or be modified in the addendum (Appendix A-1).

Identified Mitigation Measures

1. Physical Environment

Wildlife

- Powerlines will be constructed according to R.R. Olendorff's, Suggested Practices For Raptor Protection on Power Lines (1981).
- * The Church will be a cooperative member in a Multiple Species Conservation Plan if future conditions warrant the creation of such a plan.

Aquatic Life & Habitats

- Sedimentation controls, such as hay bales on construction sites, revegetation and landscaping, will be done where appropriate.
- Develop a spill containment/emergency response plan, if deemed necessary by the Montana Department of Fish, Wildlife and Parks (DFWP).
- Develop a sediment control plan in conjunction with tank installation at Mol Heron Shelter.
- * Cooperate in a baseline study of invertebrate communities and use by spawning fish if future conditions warrant such a study.
- Develop, in cooperation with the DFWP, a catch and release for Yellowstone Cutthroat Trout during the annual conference (proposed change from existing policy of one fish per fisherman).
- Leave a vegetation buffer zone between Golden Age Village and Fridley Creek.

Water

- Develop an Emergency Response Plan for the remediation of potential future fuel spills.
- Use a lagoon or treatment plant for final treatment of wastewater at Golden Age Village.
- Include additional hydrogeological information with plans and specifications for the proposed expansion of the Golden Age Village water and wastewater systems if the DHES review indicates more data is necessary.
- Replace the Blue House Kitchen drain field in an area outside the 100 year flood plain of Trail Creek and build a storage pond with land application or total evaporation for disposal of treated effluent, if the drain field is currently in the floodplain.

- Use the sedimentation control measures described in the Church's preliminary engineer's reports.
- The geothermal well drilled to tap the aquifer serving LaDuke Hot Spring will only be used in accordance with the Certificate of Water Right issued by DNRC until a change authorization, permit or other approval is given by the DNRC under Montana Law.
- The Church and the DHES will jointly develop a water quality monitoring program for Mol Heron Creek. The Church will bear the cost of sampling and reporting, and will cooperate with the DFWP in monitoring the aquatic environment.

Geology

- No mitigation measures were recommended.

Soils

- No mitigation measures were recommended.

Botanical Resources

*
- Cooperatively assist in mapping all plant communities on the ranch - in conjunction with the Multiple Species Conservation Plan listed as a mitigation measure for wildlife - if future conditions warrant the creation of such a plan.
- Consult with the Soil Conservation Service (SCS) for restoration of vegetation in sagebrush steppe communities.
- Stockpile 2-6 inches of topsoil for reclamation of construction projects where excavation will occur.
- Restrict heavy vehicle traffic on construction sites to avoid compaction.
- Use seed mixtures and species in consultation with the SCS.
- Monitor restored sites to determine if irrigation is necessary.
- Mulch, if required, with materials free of weed seed.
- Avoid driving vehicles in weed-infested areas.
- Implement a weed control program for gravel pits.

Aesthetics

- Develop Church guidelines for building heights in conjunction with state building code laws; design criteria for building color, roof line and building placement; and use vegetation and landscaping to make development more aesthetically pleasing.

*
- Use only those street and yard lights necessary for safety and security reasons.

Air Quality

- Apply water to settle the dust at construction sites, as necessary.

Historical and Archeological

- * Consider structural rehabilitation of the old plunge at Corwin Springs.
- * Additional subsurface excavation at Site 24PA758, if future construction occurs.
- Fence off, protect and otherwise guarantee that the historic features along the Old Yellowstone Park Trail contained within the lagoon project area would not be disturbed, or:
- Small scale excavation of select localities along the Old Yellowstone Park Trail contained within the lagoon project area and photograph and map the historic advertising boulder, then move the boulder to a museum facility or other appropriate location.
- Inventory Class III cultural resources at the Golden Age Village project site prior to final approval or construction.
- * Inventory Class III cultural resources on appropriate areas of Church properties prior to future development.

Land Use

- No mitigation measures were recommended.

2. Human Environment

Mitigation measures are not recommended except in the following cases:

Fire Protection

- * Complete the plans for fire protection at East Gate that were described in the DEIS.

Roads and Traffic

- Cooperate with the county in paving and widening the county road from the Ranch Office to Ranch Headquarters.
- Cooperate with the state and county in replacing the Corwin Springs Bridge.
- Participate in a voluntary resolution process among Park County, Gardiner School District, Yellowstone National Park and the Church for designating a safe, practical route for truck traffic through

Gardiner.

- Joint Church-county review of road and bridge conditions before and after fuel tank installation in Mol Heron, and cooperate with road reconditioning as necessary after installation.

APPENDIX A

MITIGATION PLAN

MITIGATION PLAN AGREEMENT

THIS MITIGATION PLAN AGREEMENT, dated the 16th day of February, 1989, is hereby made and entered into by and between CHURCH UNIVERSAL AND TRIUMPHANT, INC. (the "Church"), a Montana nonprofit corporation, and the MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES ("the Department"), an agency of the State of Montana, with regard to the following facts and circumstances:

WHEREAS, the Department has undertaken the preparation of an Environmental Impact Statement (EIS) in accordance with the provisions of the Montana Environmental Policy Act (MEPA), Section 75-1-101, et seq., MCA and ARM 16.2.601, and the Montana laws regarding Public Water Supplies, Section 75-6-101, et seq., MCA and ARM 16.20.401, Food Establishments, Section 50-50-102, et seq., MCA and ARM 16.10.3, Trailer Courts and Tourist Campgrounds, Section 50-52-101, et seq., MCA and ARM 16.10.7, and Work Camps, Section 50-52-102, et seq., MCA and ARM 16.10.9, concerning a request for the approval of licenses, plans and specifications submitted to the Department by the Church for proposed projects in Park County, Montana; and

WHEREAS, in its findings included in the Draft and Final EIS, the Department has recommended the approval of all licenses, plans and specifications sought by the Church subject to the implementation of a Mitigation Plan for indirect or secondary impacts; and

WHEREAS, the Department and the Church wish to make a contractual agreement governing the scope and extent of the various mitigation measures which make up the Mitigation Plan, the provisions for implementation of each of the measures, and the duties, obligations, rights and privileges of each of the parties with respect thereto;

NOW, THEREFORE, IT IS HEREBY AGREED AS FOLLOWS:

1. The Church agrees to coordinate and cooperate with the appropriate federal, state and local agencies to implement the recommendations included in the Mitigation Plan.

2. With regard to the various measures included in the Mitigation Plan, the Church and the Department agree upon the following provisions governing the scope, extent and implementation of each measure:

a. For the particular projects covered by the EIS for which the Church has requested an approval or license from the Department, the Church shall utilize site planning that will allow housing and work units to be clustered in small units, minimizing loss of productive land, impacts on wildlife and preserving aesthetics of the area.

b. The Church will cooperate with Park County and jointly participate in a road improvement and dust control program on the county roads which cross the Royal Teton Ranch and receive the heaviest use. These roads include:

(1) The County Roads running from the Corwin Springs Bridge to the Ranch Headquarters, Ranch Office, Spring Creek and East Gate development sites, and up to U.S. Highway 89, at the RTR-S; and

(2) The Mol Heron Creek County Road running from the Ranch Headquarters to the Mol Heron Conference Site, at the RTR-S.

The scope and extent of this cooperation and joint participation with Park County to improve the roads and control dust are described in a letter from the Church addressed to the Park County Commissioners dated April 27, 1987, together with additional agreements that have been reached since that time for providing gravel to Park County. In general, the Church's participation will include:

(1) Providing soil and clay binder material from the Church's land for blending with road gravels for magnesium chloride dust treatments, at no charge to Park County;

(2) Providing magnesium chloride road treatment material and application at the Church's expense;

(3) Providing watering and compaction with steel roller for magnesium-chloride-treated road sections with the Church's equipment;

(4) Providing culvert materials and installation on some sections of road at the Church's expense;

(5) Providing grading, cutting, filling and culvert installation to improve some sections of road with the Church's equipment;

(6) Providing occasional assistance with watering, grading, and/or compaction with steel roller when Park County is maintaining roads; and

(7) Cooperating with Park County to provide gravel sites on the Church's land at nominal expense, or on a bartered basis.

c. The Church will utilize car pooling and other forms of common transportation in moving its employees from one location to another, including the running of a ranch "shuttle service" on a regular schedule between the most highly traveled routes on the RTR-S.

d. The Church has agreed to move its poultry processing facility (also referred to in the EIS as a "slaughterhouse") from the RTR-S to a site closer to where the poultry is raised at the RTR-N. The Church will not construct any slaughterhouses on the RTR-S at any time in the future without the Department's approval.

e. The Church has reached a tentative agreement with the U.S. Forest Service (USFS) for an exchange and consolidation of public and private lands within and adjacent to the RTR-S. One of the terms of that tentative agreement provides for "...a legally binding restriction (i.e., by easement or covenant) to prohibit domestic sheep grazing on Cinnabar Mountain, as a buffer for Big Horn Sheep. The land to be included in this restriction is as follows:

> "Those portions of Sections 24 and 25, Township 8 South, Range 7 East, bounded on the north and west by the Mol Heron Creek County Road."

The Church agrees to pursue the implementation of this exchange agreement with USFS with reasonable diligence, and in the interim, to not allow its domestic sheep to use the area described above in order to minimize the potential of disease transmission. Should the tentative exchange agreement with USFS not be implemented, or should it ultimately be rejected for any reason, the Church agrees to negotiate an acceptable lease to the Montana Department of Fish, Wildlife and Parks (DFWP) for the grazing rights within the described area on Cinnabar Mountain.

f. The Church has already constructed, and agrees to maintain, a bear-proof fence around the tree farm area at the RTR-S.

g. For 1988 and any currently planned seasons in the future, the Church has removed its production of root crops (carrots and potatoes) from the RTR-S to the RTR-N.

Should the Church resume the production of carrots and potatoes at the RTR-S at any time in the future, and should conflicts with grizzly bears being attracted to the crops occur, one or more of the following mitigation measures will be undertaken by the Church until the problems are resolved:

(1) Erection of temporary bear-proofing around root crop areas with portable electric fencing;

(2) Cooperation with the DFWP for the trapping and removal of problem bears to remote areas;

(3) Construction of a permanent bear-proof fence around the root crop fields; or

(4) Moving of root crop fields farther north.

h. The Church agrees to move the composting of vegetation to other Church property away from the RTR-S where there is little likelihood of grizzly bear problems developing.

i. The Church agrees to implement a sediment control plan for all developed areas where the natural vegetative protective covering is removed for construction operations. Primarily, this will consist of the placement of hay or straw bales within and around the perimeter of construction zones where runoff is likely. Should this measure fail to adequately control sediment runoff, the Church agrees to implement any other reasonable measures specified by the Department.

j. The Church agrees to continue negotiating with Yellowstone National Park (YNP), DFWP, and other government agencies and private water users or appropriators having an interest, to establish minimum instream flows for Reese Creek, Mol Heron Creek and Cedar Creek. Nothing in this agreement, however, may be interpreted or used in such a way as to effect a taking of any of the Church's water rights without due process and just compensation, or to require the unilateral relinquishment of any of those rights, or to deny the Church the use of its private water rights appropriated, decreed, adjudicated, permitted and/or authorized under Montana Water Law.

k. The Church agrees to cooperate with DFWP, to the extent allowed by law and deemed appropriate or necessary by DFWP, to establish a catch-and-release program and/or to implement other fishing regulations for the upper section of Mol Heron Creek during those times of year when the Church's outdoor conferences are held.

l. The Church agrees to monitor the groundwater impact, using guidelines and methods approved by the Department, of the existing wastewater disposal system serving the shower and toilet facility at the Mol Heron Creek Conference Site. If adverse impact is identified, an alternative method of wastewater disposal will be implemented with approval of the Park County Health Department and, if appropriate, the Department.

m. The Church agrees to monitor the groundwater impact, using guidelines and methods approved by the Department, of the proposed new wastewater facility serving the East Gate Work Camp. If adverse impact is identified, an alternative method of wastewater disposal will be implemented with approval of the Park County Health Department and, if appropriate, the Department.

n. The Church agrees to monitor the groundwater impact, using guidelines and methods approved by the Department, of the proposed new wastewater facility serving the Ranch Headquarters. If adverse impact is identified, an alternative method of wastewater disposal will be implemented with approval of the Park County Health Department and, if appropriate, the Department.

o. The Church agrees to monitor and report the flows, using guidelines and methods approved by the Department, at all wastewater systems previously approved and all systems that will be approved by the Department for the particular projects covered by the EIS. Flows in excess of design parameters will require system modification with approval of the Department and the Park County Health Department.

p. To the extent that the soils in the drainfield trenches at the proposed East Gate Work Camp Wastewater System and Ranch Headquarters Wastewater System 2 do not already contain a sufficient amount of sand as deemed necessary or advisable by the Department, the Church agrees to line the drainfield trenches for these new systems with sand as specified by the Department.

q. The Church agrees to make reasonable efforts to utilize the best available management practices in all aspects of agricultural production for its type of farming and ranching operations. This includes adhering to the terms of any Conservation Plans developed by the U.S. Soil Conservation Service for the RTR-S and RTR-N, and the grazing and range management plans specified in the USFS Grazing Permits covering the RTR-S and RTR-N.

r. The Church agrees that the geothermal well drilled to tap the aquifer serving LaDuke Hot Spring will not be developed or utilized until a change in the point of diversion and place of use is authorized by the Montana Department of Natural Resources and Conservation (DNRC) under Montana Water Law.

3. The terms and provisions of this agreement are enforceable as a specific performance contract and an action may be maintained by either party to obtain specific performance of its terms, or to enjoin any action which is required to be performed or is prohibited hereunder, or to otherwise obtain equity for the protection of: (1) the environmental values envisioned by each of the mitigation measures, and (2) private land ownership rights.

4. The legal effect of this agreement is conditioned upon the issuance of a Final EIS and the approvals of all licenses, plans and specifications by the Department as recommended. Should the Final EIS or any of the approvals, permits or licenses issued by the Department be legally challenged, and be either invalidated or significantly modified by administrative, legislative or judicial action, then this agreement shall become null and void and subject to renegotiation.

5. Nothing herein shall be construed as giving any right to maintain an action for enforcement of this agreement, or any term or provision hereof, to any person or agency that is not a party to this agreement.

6. The effective date of this agreement shall be the date of issuance of the Final EIS.

7. The Church and the Department agree to have the Department conduct periodic announced and unannounced site inspections and meetings with the Church to ensure compliance with approved plans and specifications and the terms and conditions of the Mitigation Plan Agreement.

8. The Department and the Church agree that the Department will incorporate as conditions in any license or

approval issued in conjunction with the Final EIS such mitigation measures as are contained herein that are applicable to such license or approval.

IN WITNESS WHEREOF, the parties hereto have set their hands and seals as of the day and date first above mentioned.

CHURCH UNIVERSAL AND TRIUMPHANT, INC.

By: Elizabeth Clare Prophet
ELIZABETH CLARE PROPHET, President

By: ______________________
EDWARD L. FRANCIS, Vice President
and Secretary

DEPARTMENT OF HEALTH AND
ENVIRONMENTAL SCIENCES

By: ______________________
SIDNEY PRATT, M.D., Acting Director

APPENDIX A-1

ADDENDUM TO MITIGATION PLAN AGREEMENT

ADDENDUM TO MITIGATION PLAN AGREEMENT

THIS ADDENDUM TO MITIGATION PLAN AGREEMENT, dated the 22nd day of October, 1993, is hereby made and entered into by and between CHURCH UNIVERSAL AND TRIUMPHANT, INC. (the "Church"), a Montana nonprofit corporation, and the MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES ("the Department"), an agency of the State of Montana, with regard to the following facts and circumstances:

WHEREAS, the Department and the Church are parties to a certain Mitigation Plan Agreement dated February 16, 1989 (the "Agreement"), defining mitigation measures to be implemented by the Church pursuant to a Draft Environmental Impact Statement (DEIS) issued by the Department on February 5, 1988 and a Final Environmental Impact Statement (FEIS) issued by the Department on March 15, 1989; and

WHEREAS, the Department has undertaken the preparation of a Supplement Environmental Impact Statement (SEIS) in accordance with the provisions of the Montana Environmental Policy Act (MEPA), Section 75-1-101, et seq., MCA and ARM 16.2.601, and the Montana laws regarding Public Water Supplies, Section 75-6-101, et seq., MCA and ARM 16.20.401, Food Establishments, Section 50-50-102, et seq., MCA and ARM 16.10.3, Trailer Courts and Tourist Campgrounds, Section 50-52-101, et seq., MCA and ARM 16.10.7, Work Camps, Section 50-52-102, et seq., MCA and ARM 16.10.9, and Underground Storage Tanks, Section 75-11-201, et seq., MCA, concerning a request for the approval of licenses, plans and specifications submitted to the Department by the Church for proposed actions in Park County, Montana; and

WHEREAS, in its findings included in a Draft SEIS issued on November 19, 1992 and a Final SEIS to be issued concurrently herewith, the Department has recommended the approval of all licenses, plans and specifications sought by the Church subject to the implementation of additional mitigation measures for identified primary, secondary or reasonably foreseeable cumulative impacts of the proposed actions; and

WHEREAS, certain of the mitigation measures identified in the Agreement are to be modified or supplemented, and several new mitigation measures are to be added to the Agreement, in accordance with the findings of the Draft SEIS and Final SEIS; and

WHEREAS, the Department and the Church wish to make an Addendum to the Agreement defining the scope and extent of the various mitigation measures to be modified or added to the Mitigation Plan, updating the provisions for implementation of the measures, and setting forth any modifications concerning the duties, obligations, rights and privileges of each of the parties with respect thereto;

NOW, THEREFORE, IT IS HEREBY AGREED AS FOLLOWS:

1. The Church and the Department hereby agree that certain of the mitigation measures included in the Agreement are modified or supplemented in the following respects:

a. Paragraph 2(b) of the Agreement is supplemented with the following additional provisions:

(1) The Church will cooperate with Park County and jointly participate in a program to pave or widen the Old Yellowstone Trail county road running between the Ranch Office and the Ranch Headquarters (or any part thereof), if requested by Park County, with the same type of participation that the Church previously agreed to give for road improvement and dust control on certain county roads in Paragraph 2(b) of the Agreement.

(2) The Church will cooperate with the State of Montana Department of Transportation (DOT) and/or Park County and jointly participate in a program to replace or rehabilitate the Corwin Springs Bridge, if requested by the DOT and/or Park County, with the same type of participation that the Church previously agreed to give for road improvement and dust control on certain county roads in Paragraph 2(b) of the Agreement.

(3) If requested by any government agency having jurisdiction, the Church will agree to participate in a voluntary resolution process involving Park County, the Gardiner School District, Yellowstone National Park and/or any Gardiner residents selected by the agency with jurisdiction, for the establishment, publication and enforcement of ordinances or regulations concerning the routing of truck traffic through Gardiner and the avoiding of the Gardiner School parking lot. The Church will continue to institute measures that prevent use of the school parking lot by its own trucks and will also notify business associates not to route trucks through the parking lot.

(4) The Church agrees to consult with Park County concerning road and bridge conditions in the Mol Heron Canyon (now referred to as the Cinnabar Basin Road) before and after new fuel tank installation at the Mol Heron Shelter Site, and will agree to cooperate with Park County and jointly participate in a program to recondition the county

county road upon completion of the project if warranted and if requested by Park County.

b. Paragraph 2(i) of the Agreement is supplemented with the following additional provisions:

(1) The Church agrees to develop guidelines for the reclamation, revegetation and landscaping of land disturbed due to construction activities, and to periodically update and improve such guidelines as appropriate and submit the updated guidelines to the Department. Such guidelines will include stockpiling at least 2-6 inches of topsoil for the reclamation of construction projects where excavation will occur, restricting heavy vehicle traffic on construction sites to avoid compaction, monitoring restored sites to determine if irrigation is necessary, mulching with materials free of weed seed, restricting construction vehicles from driving in weed-infested areas, applying water to settle dust at construction sites, as necessary, and defining a weed control program for gravel pits on Church property.

(2) The Church will consult with the Soil Conservation Service concerning techniques and recommendations for the reclamation and revegetation of construction sites in sagebrush steppe communities and concerning seed mixtures and species of vegetation to be used.

(3) Existing sediment control plans shall be implemented in conjunction with the planned fuel tank installation project at the Mol Heron Shelter Site.

(4) A vegetation buffer zone shall be maintained between the planned Golden Age Village/Phase II Expansion project and the North Fork of Fridley Creek.

c. Paragraph 2(k) of the Agreement is supplemented with the following additional provisions:

(1) The Church has established a voluntary catch-and-keep limit on fishing in Mol Heron Creek by conferees during its annual summer conference of one fish per fisherman, with all additional fish caught in the creek being catch-and-release only. The Church allows conferees to have access to the creek during the annual summer conference subject to compliance with its fishing rules. The Church agrees to continue to maintain this existing policy.

(2) The Church will further agree to cooperate with the Montana Department of Fish, Wildlife and Parks (DFWP) in

developing a catch-and-release program in Mol Heron Creek for Yellowstone Cutthroat Trout, if deemed necessary by DFWP and if established by regulations that apply equally to all.

d. Paragraph 2(r) of the Agreement is replaced in its entirety with the following provisions:

The Church agrees that the geothermal well drilled near LaDuke Hot Spring will only be used in accordance with Certificate of Water Right No. 81814-G43B issued by the Montana Department of Natural Resources and Conservation (DNRC) until a change authorization, permit or other approval is given by the DNRC in accordance with Montana law.

2. The Church and the Department hereby agree upon the following provisions concerning the scope, extent and implementation of additional mitigation measures:

a. The Church agrees that any above-ground power lines installed by it on Church property will be constructed according to the recommendations contained in "Suggested Practices for Raptor Protection on Power Lines" by Richard R. Olendorff (1981), or other improved techniques recognized by the DNRC.

b. The Church agrees to develop a spill containment/emergency response plan to be employed in the event of any leaks or spills of fuel or hazardous substances which are known or planned to be on Church property.

c. The Church and the Department agree that the treatment of wastewater for the Golden Age Village/ Phase II Expansion project may include either a lagoon or an approved treatment plant, and that effluent disposal may include either a storage pond with total evaporation or seasonal land application or another method of disposal that is in accordance with state regulations.

The Church agrees to provide additional hydrogeologic information as part of its plans and specifications for the proposed expansion of the water and wastewater systems for the Golden Age Village/Phase II Expansion if the Department's review indicates the information is necessary.

d. The Church agrees that if an engineering investigation determines the North Ranch Blue House drainfield is located within the 100-year floodplain of Trail Creek, it will be relocated outside of the floodplain prior to utilization of the facility for a community kitchen.

e. The Church will develop guidelines for planned major developments, such as the Spring Creek Church Headquarters, which will attempt to make such facilities more aesthetically pleasing, using principles of architecture and landscape architecture. Such guidelines could include the regulation of building heights in conjunction with state building code laws; design criteria for building colors, roof lines and building placements; and the use of vegetation and landscaping where feasible.

f. The Church agrees that potential impacts to the historic features identified by GCM Services in its Cultural Resource Inventory (4/87) along the Old Yellowstone Park Trail and contained within the Spring Creek lagoon project area (Site 24PA763) will be mitigated prior to construction as follows:

(1) The Church will fence off, protect and otherwise guarantee that historic trash dumps and a historic sign boulder will not be disturbed in place; or

(2) The Church will arrange for a small-scale excavation by a cultural resource professional of select localities within the lagoon project area, including excavation of the trash scatters, photographing and mapping of the historic sign boulder in place and removal of the boulder to a museum facility or other appropriate location.

g. The Church will agree to arrange for a Class III Cultural Resource Inventory of the Golden Age Village/Phase II Expansion site prior to construction.

h. The Church and the Department will jointly develop a reasonable water quality monitoring program for Mol Heron Creek to monitor for foreseeable impacts to the creek from known or planned Church development activities. The Church will bear the cost of sampling for agreed-upon pollutants at reasonable intervals and reporting the results to the Department. The Church will also give reasonable access to the DFWP for monitoring of the aquatic environment in the creek at occasional intervals. The monitoring program will run for a period of three (3) years, and any need for further monitoring will then be reevaluated by the Church and the Department.

3. The legal effect of this agreement is conditioned upon the issuance of a Final SEIS and the approvals of all licenses, plans and specifications by the Department as recommended. Should the Final SEIS or any of the approvals, permits or licenses issued by the Department be legally challenged, and be either invalidated or significantly modified by administrative, legislative or judicial action, then this agreement shall become null and void and subject to renegotiation.

4. Nothing herein shall be construed as giving any right to maintain an action for enforcement of this agreement, or any term or provision hereof, to any person or agency that is not a party to this agreement.

5. The effective date of this Addendum shall be the date of issuance of the Final SEIS.

IN WITNESS WHEREOF, the parties hereto have set their hands and seals as of the day and date first above mentioned.

CHURCH UNIVERSAL AND TRIUMPHANT, INC.

By: Elizabeth Clare Prophet
ELIZABETH CLARE PROPHET, President

By: Edward L.
EDWARD L. FRANCIS, Vice President
and Secretary

DEPARTMENT OF HEALTH AND
ENVIRONMENTAL SCIENCES

By: Robert J Robinson
Robert J. Robinson, Director

APPENDIX B

PERSONS GIVING STATEMENTS AT DSEIS HEARING

APPENDIX B

PERSONS GIVING STATEMENTS AT DSEIS HEARING:

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